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A REVISION OF THE AMERICAN COMPONENTS
OF THE TENEBRIONID SUBFAMILY
TENTYRIINÆ.

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SEVERAL of the groups reviewed in the following pages have formed the subject of previous study on the part of the writer, either monographically, as in the case of the genera allied to *Eurymetopon*, or as detached new species, and the present opportunity is embraced to give a connected view of the entire series, in that part of the great family Tenebrionidæ having the abdominal segments unmodified by a coriaceous hind margin and the middle coxæ enclosed externally by the sterna alone, without the intervention of a small piece attached to the coxæ and sometimes separating the sterna, known as a trochantin. This is the definition of the subfamily Tentyriinæ as given by LeConte and Horn, and is adopted for the present revision, although reasons will be given further on for a belief that it is not an entirely natural subdivision, there being two great groups included, characterized principally by the development of the mentum, which apparently affords a better line of delimitation for subfamily groups than the presence or absence of a trochantin. However, this is more a matter to be discussed in a general revision of the family than at the present time, and the following work is presented simply with the hope that it may prove useful in giving some slight conception of a problem in classification, the difficulties and uncertainties of which are well known. Perhaps the most perplexing feature pertains to the differenti-

ation of the genera, and I may have overstepped the limit of prevailing conservatism in proposing so many of them, but it seems certain that the proportion of wholly unnecessary names: that is, titles that are not at any rate subgeneric if not tully generic, will prove to be very small indeed. The limitation or extension in scope of genera and subgenera is, with the discovery of more complete material, becoming increasingly arbitrary and opinionative.

As in all of the more recent investigations of the writer, as much foreign material as possible has been accumulated for study in connection with our own, and this method is recommended to all those who would attempt systematic work upon a restricted fauna, as being more liable to produce results that may be valuable to a general monographer, if, in the future, there may develop anyone willing and able to take up such a life work as a general monograph of the larger families of Coleoptera is rapidly becoming. The foreign groups thus included for comparison are indicated, as formerly, by a prefixed asterisk in the tables of tribes and genera.

WASHINGTON, June 10, 1907.

Order COLEOPTERA; Family TENEBRIONIDÆ.

Subfamily TENTYRIINÆ.

The Tenebrionidæ in general have ever been a stumbling-block to the systematic investigator, for the reason that radical structural divergencies, constant through extended groups, are so few in number and minor group characters, in all manner of unexpected directions, so infinitely varied. In considering the Tenebrionidæ of the world, even so talented a morphologist as Lacordaire found these troubles practically insurmountable, and it is therefore with diffidence that I venture here upon a pronounced departure from the usual succession and arrangement of the numerous tribes of the subfamily Tentyriinæ, as defined by LeConte and Horn.

By studying carefully some of the palæarctic types of the Tenebrionidæ, I find the apparent relationships of some of our more isolated genera, such as *Craniotus*, which is evidently the

American representative of *Adesmia* and *Stenocara*, and further observation shows that in *Adesmia* and *Craniotus* we have the closest approach, among the Tentyriids with large mentum, to our remarkably specialized Zopherini. These facts suggest at once the reversal in order presented by the following rearrangement. The very isolated *Zophosis* of the old world fauna, which has there no close relative, seems to have its nearest neighbor in our Epitragini, which, although a generally winged type, presents many suggestive resemblances, such as the prolonged prosternum and excavated mesosternum, as well as the presence of two metasternal grooves before the posterior coxæ, the significance of which is wholly unknown. In *Zophosis* these lines are very oblique, conforming somewhat to the unusually oblique coxæ, and retreat broadly from the latter outwardly, though having the same point of origin as the transverse grooves of Epitragini and many other of our new world types, principally prevailing in those tribes characterized in general by developed hind wings. The equally isolated Eroidini of the old world are passably represented by our *Edrotes*, which should form a tribe of itself and apart from *Epiphysa*, because of its widely different coxæ and tarsi, as well as the unusual epipleuræ. Such aberrant types as *Chilometopon*, which Horn referred quite erroneously to the Epitragini, and *Trimytis*, with some of the Mexican forms recently described by Champion, fall satisfactorily into a special tribe, related very closely to the Eurymetoponini, and *Conæcus*, which the systematist mentioned referred with equal error to the Gnathosiini, is very plainly an Epitragid. The singular genus *Auchmobius*, which I regret being unable to observe in nature, appears from the remarks published by Dr. Horn, particularly concerning the aberrant mandibles and antennæ, to necessitate a tribe of its own, perhaps combining some of the characters of the Trimytini and Eurymetoponini.

With these preliminary remarks the arrangement of the tribes represented by material known to me may be presented as follows:—

- Mentum very large, concealing both ligula and maxillæ.....2
- Mentum generally smaller in size, never concealing both the ligula and maxillæ14

- 2 — Anterior tibiæ with a single terminal spur and a submedian external tooth; mandibles grooved externally throughout their length; mentum hexagonal, feebly sinuate at tip; intercoxal process of the abdomen narrow, subacute or slightly rounded; scutellum distinct; metasternum with transverse ante-coxal grooves; hind wings well developed.....**Cnemodini**
- Anterior tibiæ with two terminal spurs, not toothed externally near the middle in any American genus; mandibles never grooved externally except in *Erodiini*.....3
- 3 — Posterior coxæ more or less narrowly separated, the abdominal process acute to broadly rounded.....4
- Posterior coxæ widely separated, the abdominal process broadly truncate; metasternum without ante-coxal grooves, short, the body wingless; elytra frequently costulate.....11
- 4 — Elytra not embracing the sides of the body, the inflexed parts occupied wholly by the epipleuræ — or epipleural “repli” of Lacordaire.....5
- Elytra embracing the sides of the body, the inflexed parts not wholly occupied by the epipleuræ.....10
- 5 — Mentum hexagonal, with the apex more or less distinctly emarginate or sinuate.....6
- Mentum transversely parallelogramic, the apex very broadly arcuate from side to side and not sinuate at the middle, generally much more transverse.....9
- 6 — Front without a prolonged epistoma clasped by the mandibles, the frontal margin transverse and more or less feebly modified, the right mandible at least generally with a tooth which clasps the labrum only; antennæ slender, with the outer four joints broader; scutellum well developed; metasternum with ante-coxal transverse grooves; body generally winged, though often apterous.
Eurymetoponini
- Front with the epistoma abruptly prolonged.....7
- 7 — Epistomal lobe clasped by the superior external ridge of the mandibles; antennæ filiform, generally with the last four joints larger.8
- Epistomal lobe not clasped by the mandibles, which are folded beneath it out of sight from above; antennæ gradually enlarged and compressed outwardly... ..**Auchmobiiini**
- 8 — Scutellum well developed as in *Eurymetoponini*; body winged or apterous, the metasternum with or without ante-coxal grooves.
Trimytini
- Scutellum extremely minute or obsolete; body wholly apterous; metasternum always very short, without trace of ante-coxal grooves.
Trientomini
- 9 — Metasternum with transverse grooves parallel to the hind coxæ, the body generally winged, the epistoma lobed and the scutellum well developed**Epitragini**

10 — Metasternum with oblique grooves homologous with the transverse ante-coxal grooves of preceding tribes; epipleuræ very wide, occupying virtually the entire inflexed sides of the elytra; scutellum wholly invisible; mentum hexagonal, sinuate at tip; antennæ slender; mandibles generally bifid at tip, folding under the labrum, the frontal margin not greatly modified; tibial spurs greatly developed; body oval, apterous.....***Zophosini**

Metasternum with very fine abbreviated transverse grooves, short, the body wingless, oval in form; epipleuræ narrow, entire as usual; eyes not prominent; scutellum invisible; mentum more transverse, sinuate at tip; antennæ slender; mandibles bifid at tip, strongly toothed above and clasping the sides of the prolonged epistoma; tibial spurs short as usual.....***Capnisini**

Metasternum without grooves, short, the body oblong or elongate, wingless; tibial spurs, mentum, eyes, epipleuræ and tip of the mandibles as in Capnisini; antennæ very stout; front variable in form; scutellum visible but small, always strongly angulate; elytra as in Capnisini, without punctured series, though sometimes with impressed lines.....***Gnathosiini**

Metasternum, tibial spurs, mentum, epipleuræ and tip of the mandibles as in Gnathosiini; antennæ very slender; front variable in form; scutellum distinct, always transverse and very obtusely truncate, generally not entering between the elytra behind the invariably pronounced basal margin; eyes coarsely faceted; body elongate, wingless, the elytra oval, with punctured series.

Triorophini

11 — Mesosternum elevated, flat, abutting closely and on the same plane against the apex of the flattened prosternal process; hind coxæ transversely oval, only moderately abbreviated transversely.

12

Metasternum not elevated, discontinuous with the prosternum; hind coxæ small, oval, very much abbreviated transversely; eyes finely faceted; legs long and slender.....13

12 — Body pilose, with broadly inflated elytra and narrower correct anterior parts, the front with a strong epistomal projection clasped by the mandibles, which are bifid at tip; antennæ slender; scutellum invisible; epipleuræ obliterated anteriorly from near the base of the abdomen; metasternum longer than the first ventral; intercoxal process of the abdomen only moderately wide and broadly rounded.....**Edrotini**

Body broadly oval, glabrous and compact, the prothorax closely fitted to the elytra throughout the basal width of the latter; epistoma sinuate, not produced; mandibles small, folding beneath the labrum, deeply grooved externally but with the groove not attaining the bifid apex, the lower margin externally very acutely ridged; antennæ very stout; scutellum invisible; epipleuræ entire but very variable in form; metasternum extremely short, much

shorter than the first ventral; middle and hind coxæ extremely widely separated; anterior tibiæ with the outer angle prolonged into a slender spur, the outer side strongly toothed at the middle.

***Erodiini**

- 13 — Epipleuræ more or less narrow but distinct and entire; body narrow anteriorly, with elongate-oval elytra, glabrous; head not lobed at the sides, the epistoma sinuato-truncate, the mandibles folding beneath the labrum; mentum truncate at base, feebly sinuate at apex; antennæ long, slender, with the outer five joints more or less broader; scutellum invisible; middle coxæ moderately, the posterior very widely, separated, the hind coxæ almost attaining the sides of the body and subglobular.....***Adesmiini**

Epipleuræ wholly wanting, except toward the apex of the elytra, where they are very narrow; body formed as in Adesmiini but pubescent, the middle and hind coxæ similar, the latter not approaching so closely to the sides of the elytra; head strongly, angularly lobed at the sides, the epistoma and mandibles as in Adesmiini, the mentum sinuate and impressed medially at base and deeply sinuate at apex; antennæ filiform, slender, with joints eight to ten gradually larger, the eleventh attached as a terminal process of the tenth; scutellum well developed, acutely triangular.

Craniotini

- 14 — Elytra without true epipleuræ; anterior coxæ separated.....15

Elytra with clearly defined entire epipleuræ.....18

- 15 — Antennæ very long, slender and filiform; body slender, the eyes on the sides of the head, convex and more or less prominent; maxillary palpi very long, the last joint elongate, arcuately truncate; scutellum well developed, semicircular; elytra costate; mesosternum greatly prolonged before the coxæ; met-episterna clearly delimited; hind coxæ large, widely separated; legs long.

***Leptodini**

Antennæ very small, compact, generally received in fossæ; eyes concealed in repose.....16

Antennæ moderately long, thick, filiform and perfoliate, usually scaly, free; legs short and stout.....17

- 16 — Eyes very minutely faceted, flat, transverse, becoming approximate above; antennæ received within deep entire prosternal fossæ, the last three joints fused into an oblong solid club; mentum small, largely concealing the ligula, which is short, broad and densely hairy, the labial palpi wholly invisible without dissection [attached at the sides — Lacordaire]; tarsi deeply grooved beneath; mandibles truncate; scutellum invisible or minute; body elongate, suboval, convex, with smooth but tuberculose integuments.....**Zopherini**

Eyes minutely faceted, flat, more widely separated above; antennæ more slender, sometimes received in fossæ, never having the last three joints fused; mentum small, leaving the maxillæ and much

- smaller ligula entirely exposed, the labial palpi distinct; tarsi and scutellum variable; mandibles bifid at tip; body oblong, depressed, very roughly and densely sculptured.....**Nosodermini**
- Eyes coarsely faceted, more rounded; antennæ received in dorsal cavities, short and stout, the last three joints free, dilated, forming a very compact 3-jointed club; mentum, ligula, mandibles, labial palpi and form and rough sculpture of the body nearly as in *Nosodermini*; scutellum very minute; body much smaller in size..... **Usechini**
- 17 — Scutellum obsolete; body elongate, the elytra more or less inflated, costate; mentum large, closely filling the buccal opening, completely covering the maxillæ but exposing the ligula in a large apical situation; eyes very widely divided and coarsely faceted ***Adelostomini**
- Scutellum extremely minute; body slender, with oval, inflated, costulate elytra; mentum moderate, subquadrate, not filling the oral opening and not sinuate at tip; eyes coarsely faceted, narrowly divided **Aræoschizini**
- 18 — Spurs of the anterior tibiæ minute or obsolete.....19
 Spurs of the anterior tibiæ longer and distinct.....22
- 19 — Antennæ thick, subfiliform, moderate in length and perfoliate as in the two preceding tribes.....20
- Antennæ very small, slender and compact; anterior coxæ separated; body glabrous.....21
- 20 — Anterior coxæ separated as usual; body elongate, convex, glabrous, the scutellum visible and sometimes large, the elytra not costulate; eyes coarsely faceted; mentum moderate, subquadrate, not filling the oral opening or covering the maxillæ.
*** Stenosini**
- Anterior coxæ contiguous; body slender, depressed, glabrous, the scutellum very minute, rounded, the elytra not costulate, the pronotum and front of the head remarkably excavated; eyes coarsely faceted, wholly dorsal though on the deep sides of the head; mentum transversely lunate, completely filling the semi-circular oral cavity, covering the maxillæ, the apex sinuate and exposing the ligula..... **Dacoderini**
- 21 — Antennæ enlarged distally, received in a deep cephalic groove continued into the propleuræ; mentum moderate, slightly transverse, concave, covering the ligula and to a slight extent, the maxillæ, the sides of the oral opening acute and prominent; maxillary palpi small and slender, the last joint very narrowly oval, obtusely pointed; eyes wholly dorsal and far from the margin of the head, extremely minute; body narrow, elongate, subparallel, convex, the scutellum small but distinct, triangular; pronotum depressed at base... .. **Typhlusechini**
- Antennæ not enlarged distally, very compact, cylindric, free; mentum moderate, subquadrate, wholly exposing the maxillæ;
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maxillary palpi slender, the last joint slender, fusiform and obtusely pointed; eyes similarly coarsely faceted, divided by the sides of the head; body broadly oblong-oval, feebly sculptured, the epipleuræ very wide; scutellum wholly invisible; prothorax as broad as the elytra but attached by a broad exposed peduncle.

* **Platamodini**

- 22 — Body small, oblong or suboval, the head widest at base, the coarsely faceted eyes divided by the acute sides, the front feebly lobed at each side; mentum moderate, exposing the maxillæ, the antennæ moderate in length, free, slender, the outer four joints broader; elytra oval, not costate, the scutellum minute, triangular; prothorax attached by a broad peduncle; legs rather short.

Batuliini

It is unusual to find such aberrant characters as the median and terminal processes of the anterior tibiæ and the externally grooved mandibles, appearing in almost identically the same form in two such completely dissimilar types as *Cnemodus* and *Erodius*, these facts showing that, notwithstanding the wonderfully varied form of the body and its various parts and organs, all of these genera of the Tentyriinæ with large mentum have a very pronounced bond of affinity. The tribes foreign to our fauna, introduced for comparison and indicated by the asterisk, are substantially those already recognized, except perhaps the Capnisini and Platamodini, the genera *Capuisa* and *Platamodes* being erroneously considered members of the tribe Tentyriini by Heyden, Reitter and Weise. The Stenosini are represented in my cabinet by *Stenosis*, *Eutagenia*, *Dichillus* and *Oogaster* and our *Aræoschizus* cannot be associated with them, disagreeing in many important characters as shown in the table; it is more closely related to *Adclostoma*, but differs greatly in the form and extent of the mentum. The Batuliini are placed last in the series as forming a more natural transition to the Asidinæ of LeConte and Horn, by way of *Aucpsius*.¹

¹ There are of course a great many other tribes of the Tentyriinæ which cannot be considered at present, such as the Salaxini, having for its type the remarkable South American genus *Salax*, resembling *Opatrum* but related closely to the Trimytini and Epiphysini, related to our Edrotini. The genus *Hylithus* will apparently constitute a tribe very close to the Trimytini, and *Hyperops* another but slightly differentiated from the Gnathosiini. In my own opinion the genus *Himatismus* should constitute a tribe very near but different from the new world Epitragini, by reason of its different facies and more hexagonal mentum. The male in *Himatismus* is distinguished from the female by a very

Tribe CNEMODINI.

There is no tribe closely related to the Cnemodini, although by the general form of the body, developed wings, large scutellum, extent and position of the epipleuræ, form of the eyes and approximation of the hind coxæ, it evidently has more affinity with the Eurymetoponini than with any other. We have apparently but one genus as follows:—

Body parallel, convex, fully winged, the head moderate, rounded, the eyes large, prominent coarsely faceted, but slightly emarginated by the acute sides of the front, which are sometimes united with the fine supra-orbital carina a short distance before them; sides strongly arcuate and converging for a short distance to the epistoma, which is slightly advanced, with its sides converging and deeply sinuate, separated from the front by a strongly elevated, medially subinterrupted ridge, its apex bilobed, concealing the labrum, the mandibles bifid at tip, broadly, deeply grooved externally and with a peculiar alate porrect prominence of the upper external edge; mentum hexagonal, its apex feebly deflexed and slightly sinuate; maxillæ with very large flat ciliate and rounded lobes, the palpi with the last joint oval; antennæ very long and slender, the two or three outer joints but little wider, the eleventh pedunculate, oval, narrower and shorter than the tenth, all the joints abruptly enlarged at their distal ends; prothorax narrower than the elytra, narrowed toward base, very feebly margined at the sides, the flanks continuously convex from the pronotum through the propleuræ; scutellum well developed, elongate, narrowly rounded at tip; elytra elongate, parallel, with exposed rounded humeri, not in the least margined at base, the epipleuræ occupying all of the narrowly inflexed sides and becoming effaced or feebly defined toward base; anterior coxæ large, globular, moderately separated, the process rapidly deflexed to the hind margin of the prosternum, strongly and densely pilose, the middle coxæ very narrowly separated or subcontiguous; hind coxæ narrowly separated, transversely rectilinear, the metasternum very long, with fine transverse ante-coxal grooves, the metepisterna wide and only very slightly narrowed posteriorly, with the suture distinct and straight; legs long and rather slender, the anterior tibiæ with an acute everted apical angle and a similar acute external tooth just beyond the middle, the terminal spur stout and distinct; tarsi long and slender, the claws very long, evenly arcuate and gradually pointed**Cnemodus**

The above rather full diagnosis of this singular genus is taken from an undescribed species named *angustus* below, and pre-remarkable character, not even suggested in any true Epitragid, the prosternum of the male having a tumid central pubescent fovea completely obsolete in the female; the punctures are wholly effaced in the neighborhood of the fovea.

sumably congeneric with *testaceus*, the original type, but of this I cannot be wholly sure at present.

Cnemodus Horn.

As stated above I assume that all of the three species described below are congeneric, though, if the figure of *testaceus* published by Dr. Horn is even approximately correct, it differs widely from the two new ones here made known: —

Elytra shining but densely, aciculately punctured. Yellowish-testaceous; head obtuse, as long as broad, moderately coarsely punctured between and in front of the eyes; prothorax wider than long, convex, the sides broadly rounded, feebly emarginate anteriorly, the angles obtuse, truncate posteriorly, the angles distinct; disk nearly smooth, moderately shining, more coarsely punctured toward the lateral margins; marginal line scarcely distinct, the pronotum almost continuous with the flank; elytra elongate, subparallel, twice as long as the head and prothorax, the humeral angles distinct, obtuse; under surface faintly and sparsely punctured and sparsely clothed with yellowish hairs. Length 8.0 mm.; width 2.75 mm. California (in the vicinity of Fort Yuma).

testaceus Horn

Elytra polished, feebly rugulose, indistinctly, sparsely and muricately punctate laterally; body more slender.....2

2 — Form very elongate, parallel, convex, polished, glabrous, with a few short erect hairs laterally, pale and uniform brownish-yellow throughout; head oval, wider than long, distinctly narrowed behind the very large prominent eyes, the vertex with a short longitudinal impressed line at the middle, evenly but not closely, rather coarsely and muricately punctate, the occiput impunctate; antennæ fully half as long as the body, the joints subequal in length; prothorax one-half wider than long, widest just before the middle, where the sides are rather strongly, evenly rounded, thence converging and less arcuate to the basal angles, which are not at all blunt and minutely prominent, less converging but rounded anteriorly to the obtuse apical angles, the apex broadly sinuato-truncate, much wider than the base, the latter coarsely beaded and rectilinearly truncate; surface very convex, polished and perfectly smooth, becoming slightly alutaceous and with some sparse shallow punctures near the sides; elytra about twice as long as the head and prothorax and a fifth wider than the latter, with feebly impressed longitudinal lines toward the suture; under surface feebly punctate, the propleuræ and abdomen nearly smooth. Length 6.3 mm.; width 2.1 mm. Arizona (Mesa).

angustus n. sp.

Form nearly similar but much smaller, pale brownish-yellow the elytra subhyaline and straw-yellow; head small, slightly trans-

verse, inserted to the large prominent eyes, the supra-orbital carina not joining the lateral margin as it does in *angustus*, opaque, sparsely, very obscurely, tubercularly punctate throughout, the vertex very feebly impressed along the median line; antennæ very slender and similar but shorter, not two-fifths as long as the body; prothorax more transverse, nearly three-fourths wider than long, widest at the middle, the sides evenly and strongly arcuate, equally converging toward apex and base which are subequal in width, the former sinuato-truncate with obtuse angles, the latter rectilinear, finely reflexed and beaded, with the angles very obtuse; surface strongly convex, opaque and strongly micro-reticulate throughout but not definitely punctate; elytra proportioned nearly as in *angustus* but only about a sixth wider than the prothorax, similarly parallel and straight at the sides, the apex rather abruptly ogival, the surface polished, not reticulate, without impressed lines except one at each side of the suture which is very feeble, the surface feebly subrugose, finely, sparsely and muricately though very indistinctly punctured at the sides only; under surface nearly as in *angustus* but duller in lustre. Length 4.8 mm.; width 1.68 mm. Utah (southwestern),—C. J. Weidt.
subhyalinus n. sp.

The species, excepting *angustus*, are very rare and apparently represented by uniques at the present time. In the published figure of *testaceus*, the elytra are relatively very much broader than in either *angustus* or *subhyalinus*; the above description is a transcription of the original.

Tribe EURYMETOPONINI.

This tribe has been known hitherto under the name Thino-batini, with the Chilean *Thinobatis* Esch., as the representative type. The published characters of that genus do not, however, seem to harmonize sufficiently with our American and Mexican species to be properly included with them, it being stated by Lacordaire that the scutellum is scarcely visible, and inferentially, that the elytra are rather inflexed beneath, with narrow epipleuræ; the figure given by Solier shows also a different form of prothorax and prominent truncate epistoma. It would appear, therefore, that our numerous species extending from Utah to southern Mexico, which hold together in very homogeneous fashion, having the scutellum invariably well developed and the elytra not inflexed beyond the rather wide entire epipleuræ, should constitute a distinctly limited tribe to be designated as above.

The genus *Eurymetopon* Esch., has apparently been misconceived hitherto. Its type was named *rufipes* by Eschscholtz, and said by that author to be from California, — I believe without further indication of locality. Mannerheim, in subsequently describing the species, gave a series of characters that undoubtedly belong to the genus that we have been calling *Eurymetopon*, but stated that it occurs near San Francisco, which is presumably an error, no example of the forms with everted tibial angle being known from above the latitude of Santa Barbara or thereabouts, they being confined to the Sonoran fauna in California. Whence Mannerheim obtained his assumed representative of *rufipes* is uncertain, and the description is not sufficiently definite for identification, but I will regard it as identical with the species subsequently described under the specific name *enorme* by LeConte. We have therefore to fall back upon the description of Lacordaire, which he states is founded upon the species named *rufipes* by Eschscholtz and represented before him, in all probability, by the original type. This description does not fit any genus of the tribe known to me, departing radically in the absence of the extremely constant supra-orbital carina and in antennal structure, as shown in the table below, from what we have become accustomed to know by the name *Eurymetopon*, as identified from a supposed typical example sent to LeConte and alluded to by Horn in his monograph of the Tenebrionidæ. It is rather more than probable that the latter specimen was not a true representative of the species, the mistake being due no doubt to hasty and careless identification. Where Eschscholtz really obtained his type of *rufipes*, which apparently belongs rightfully to the present tribe because of the distinct scutellum and certain other characters mentioned by Lacordaire, is not known, but it was certainly from the southern part of the state or Lower California, if not Mexican, and must have been from the immediate coast regions, as the interior of the country had not then been explored. The supposed duplicate of the original type of *rufipes*, just stated to have been sent to LeConte, proved to be identical with a species from the Colorado Desert of California, previously named *enorme* by that author, showing that it had been collected in that region and

not near the coast, as the species are well known to be very local in distribution; this seems to be an additional reason for doubting the authenticity of the cotype referred to by Horn. I am therefore forced to give our species hitherto known as *Eurymetopon* another generic name.

The case of *Emmenastus* Mots., is still more unsatisfactory. The original description is very short, stating that the body is oval and narrowed in front and behind, having the facies of *Gnathosia* and *Zophosis*,—which hardly resemble each other in any way,—and that the last joint of the palpi is elliptical and feebly truncate at tip. It has for its type a species named *compactus*, said to be a native of Kamtschatka, having the size of *Gnathosia depressicornis* but stouter, and is therefore a comparatively large species, probably some 10 mm. in length. It is black and opaque, with the elytra striate as in *Penthicus* and *Melanestes*,—which is the substance of the entire description. The other species placed in the genus, named *rugosus*, is smaller and is said to be from Sitka. No species of the present tribe is known to me from above the latitude of southern Idaho. Having these facts in mind I am quite unable to comprehend the remark of Dr. Horn on page 269 of his Monograph, that, “while rejecting the typical species to the doubtful list, the genus must be retained, an illustration of the prediction of a genus by an author who at the same time commits a specific blunder in doing it.” The latter author assumes moreover that *rugosus* is the type of the genus, while *compactus* was evidently the species so intended by Motschulsky. I therefore definitely reject the genus *Emmenastus* as a component part of our fauna, although it may be a valid Asiatic genus belonging to another tribe. The genera of Eurymetoponini are numerous and those represented in my cabinet may be defined as follows:—

- Anterior tibiæ produced externally at tip.....2
- Anterior tibiæ not externally prolonged at tip5
- 2 — Eyes small, subentire; head without supra-ocular carina, the epistoma broadly, sinuously emarginate; antennæ not extending to the base of the prothorax, the joints 4-10 feebly increasing in thickness, the eleventh larger than the tenth, oval; scutellum distinct, quadrangular; elytra broader than the prothorax; first joint of the

hind tarsi as long as the fourth; body depressed, parallel, the elytra rugose and feebly sulcate. [Type *E. rufipes* Esch.].

Eurymetopon

Eyes large, more or less prominent, subentire; head with a distinct supra-orbital carina, curving outwardly before the eyes; epistoma never emarginate, truncate or arcuato-truncate; mandibles ridged externally above; antennæ slender, extending about to the base of the prothorax, cylindric, the four last joints broader, compressed, forming a loose club, the eleventh as long as the tenth or longer but always distinctly narrower, more or less pointed; scutellum distinct, transverse or quadrangular; elytra never strongly rugose and nearly always having distinct serial punctures, the series wholly unimpressed as a rule.....3

3 — Tarsi beneath with numerous long stiff setæ, the basal joint of the posterior shorter than the fourth; front broadly truncate or sinuato-truncate, even, not biemarginate; hind wings well developed to vestigial or obsolete; prothorax generally fully as wide as the elytra, sometimes very slightly narrower. [Type *Eurymetopon abnorme* Lec.].....**Metoponium**

Tarsi with very few short sparse spiniform setæ beneath, the basal joint of the posterior longer than the fourth; frontal margin evidently, though minutely, biemarginate; sculpture finer as a rule, the lustre more generally subopaque, though frequently polished; prothorax generally very distinctly narrower than the elytra.....4

4 — Body elongate, with fully developed wings; prothorax more nearly parallel, with rounded sides and acute basal angles as in the preceding genus; basal joint of the hind tarsi much longer than the fourth; scutellum well developed, nearly uniform, angulate and but slightly transverse. [Type *T. longipennis* Csy.].

Telabis

Body broadly oval, without wings, the prothorax narrowing from base to apex, with very obtuse basal angles; scutellum small; front broadly, feebly trilobed. [Type *C. inflatus* Lec.]...**Cryptadius**

5 — Antennæ long and very slender, nearly as in the preceding group; eyes large, subentire or not deeply emarginate and more or less prominent.....6

Antennæ shorter and rather stout, though of the same general organization, the eighth joint never elongate; eyes rather small, transverse, not prominent, about half divided by the lateral canthus of the head.....13

6 — Body elongate, parallel.....7

Body oval, convex, glabrous, devoid of hind wings; tarsi spinulose or sparsely and very coarsely setose beneath.....12

7 — Surface glabrous.....8

Surface pubescent.....11

8 — Tarsi pubescent beneath.....9

Tarsi with sparse stiff subspiniform setæ beneath.....10

- 9—Frontal margin evenly and broadly arcuato-truncate, without emarginations; wings apparently wanting or vestigial; elytra feebly and briefly carinulate at each side of the suture near the tip. [Type *Emmenastus punctatus* Lec.].....**Emmenides**
 Frontal margin feebly and angularly produced in the middle; wings very fully developed; elytral series entire and conspicuous. [Type *Emmenastus texanus* Lec.].....**Armalia**
- 10—Frontal margin somewhat variable, evenly sinuato-, or arcuato-truncate, the epistoma sometimes very feebly produced and broadly truncate; wings fully developed to decidedly abbreviated. [Type *Emmenastus longulus* Lec.].....**Hylocrinus**
- 11—Head very short and broad, the apical margin rectilinearly transverse and even; tarsi with stiff yellow setiform hairs beneath; wings apparently somewhat abbreviated or perhaps vestigial; pronotum not foveate, the elytra margined at base as usual. [Type *E. cribratus* Horn].....**Emmenastrichus**
 Head less transverse, the frontal margin very broadly arcuate from above; tarsi with numerous short decumbent stiff yellow sub-spiniform hairs beneath; wings as in *Hylocrinus*; pronotum with two deep fossæ at base, the elytra not margined at base; first joint of the hind tarsi much elongated. [Type *Emmenastus foveicollis* Champ.].....***Ditaphronotus**
- 12—Tibiæ normal, subcylindric, the anterior nearly straight as usual; frontal margin generally feebly sinuato-truncate, not evidently biemarginate. [Type *Emmenastus conicicollis* Csy.].....**Steriphanus**
- Tibiæ gradually enlarged to the tip, the anterior short and arcuate; frontal margin broadly arcuato-truncate, with two very minute feeble emarginations; basal joint of the hind tarsi longer than the fourth; prothorax narrowing from base to apex as in *Cryptodius*. [Type *Emmenastus pinguis* Lec.].....**Stictodera**
- 13—Frontal margin broadly arcuato-truncate, entire; hind wings very small and vestigial; tarsi sparsely spinulose beneath, the basal joint of the posterior longer than the fourth; right mandible with a small acute tooth on the upper surface; body elongate, parallel to suboval, the integuments dense. [Type *Emmenastus ater* Lec.].....**Melanastus**

The characters given above for *Eurymetopon* Esch., are those published by Lacordaire in the "Genera," as before intimated. The genus is not known to me.

Metoponium n. gen.

This is the genus that is known in our lists under the name *Eurymetopon* Esch., and was so designated by the writer in his

former essay on the present group (Ann. N. Y. Acad. Sci., V, p. 330). The species are extremely numerous, closely allied and local, forming a very difficult study. Doubtless many more than a hundred of them exist in the arid regions extending from western Texas to southern California, this region, expanding but little to the north or south, being the sole and comparatively restricted habitat of the genus. The forms enumerated below seem to be specific, but further study may prove some of them to be more properly subspecies. They are differentiated principally by the form of the body and development of the hind wings, after the manner of *Blapstinus* inhabiting the same environments, by sculpture, size and form of the prothorax, and, in some cases, by certain evident differences in the scutellum. Those in my cabinet may be defined as follows:—

- Anterior tibiæ strongly and acutely everted externally at apex, as usual in the first division of the tribe; elytral punctures feebly setigerous, the setæ erect; antennæ long; surface generally shining, at least in part; wings fully developed to vestigial.....2
- Anterior tibiæ swollen and rounded externally at apex but not angularly produced; elytral punctures nude; antennæ shorter; hind wings apparently obsolete; integuments dull. [Subgen. *Metoponiopsis* n. subg.].....39
- 2 — Metasternum long, on a line through the coxæ, between the mesocoxæ and ante-metacoxal groove, very much longer than the first ventral segment.....3
- Metasternum shorter, only slightly longer than the first segment, the wings somewhat less developed than in the preceding group23
- Metasternum still shorter, as nearly as discernible equal in length to the first segment; body more oval as a rule, the wings much abbreviated or vestigial.....30
- 3 — Prothorax equal or subequal in width to the elytra.....4
- Prothorax very evidently narrower than the elytra in both sexes.....20
- 4 — Prothorax subparallel, widest at about the middle5
- Prothorax widest evidently behind the middle, more notably narrowed anteriorly.....17
- 5 — Body more or less stout in form.....6
- Body elongate and notably slender16
- 6 — Prothorax always very obviously less than twice as wide as long..7
- Prothorax shorter and strongly transverse, twice as wide as long or very nearly15
- 7 — Species of larger size.....8
- Species of moderate size10

8— Prothorax greatly developed, slightly wider than the elytra. Body parallel, convex, polished, piceous-black, with dark rufous legs and antennæ; head barely half as wide as the prothorax, the sides only moderately converging and arcuate, not quite parallel at the eyes, the front broadly truncate, the surface closely, coarsely and evenly punctato-cribrate, with a small and very uneven occipital impunctate spot; prothorax large, three-fourths wider than long, the sides moderately arcuate, becoming more convergent near the apex, the basal angles obtuse, not at all prominent or rounded, the punctures moderately coarse, impressed and separated by about twice their own diameters, becoming slightly coarser, dense and confluent, forming long rugæ, in about lateral sixth, except near the reflexed lateral edges; scutellum well developed, transverse, finely punctate; elytra two-thirds longer than wide, barely three times as long as the prothorax, rapidly and obtusely ogival at tip, rather strongly, moderately closely and confusedly punctate except toward the sides, where the punctures are in close-set irregular series, coarser and evidently muricate; abdomen not coarsely but somewhat strongly and closely punctured medially, more coarsely laterally as usual. Length 8.0 mm.; width 3.2 mm. Arizona (near Yuma).....*laticolle* n. sp.

Prothorax fully equal in width to the elytra but not wider in either sex9

9— Form stout, parallel, convex, shining, black or piceous-black, with red legs and antennæ; head moderate, though a little more than half as wide as the prothorax in the male, less broadly truncate than in *laticolle*, with the sides strongly converging and evenly arcuate before the eyes, the punctures coarse, dense, more uneven and subconfluent, the occipital spot small but better defined; prothorax large, two-thirds wider than long, the sides moderately arcuate, rounding and converging but little more anteriorly, the basal angles right and very slightly prominent, the punctures moderately small and well separated, becoming rather gradually coarse, dense and longitudinally confluent but not forming long or well-defined rugæ laterally; scutellum moderate, transverse, punctured toward base; elytra nearly as in *laticolle*, the punctures small but distinct, confused suturally but close-set and coarse in moderately regular series throughout laterally, where the intervals are unevenly uniseriate with more widely spaced punctures, the series very feebly impressed toward the suture; abdomen finely, sparsely punctate medially, more coarsely on the basal segment. Length 7.2–8.4 mm.; width 2.8–3.4 mm. California (Colorado Desert).....*abnorme* Lec.

Form less stout than in *abnorme*, elongate, parallel, strongly convex, shining, dark blackish-castaneous, the under surface piceous, the legs and antennæ dark red; head broadly truncate, the sides only moderately converging before the eyes and arcuate, the angles evident though broadly rounded, the punctures less coarse than

in *abnorme*, close-set, the occipital spot rather large and ill-defined; prothorax large, nearly as in *abnorme* but less coarsely punctured throughout, the punctures similarly arranged, the basal angles rather more than right, not rounded but not at all prominent; scutellum well developed, transverse, finely punctured almost throughout; elytra nearly as in *abnorme* but narrower, similarly but much more finely punctured throughout; abdomen finely, sparsely punctured medially, only a little less finely on the basal segment. Length 7.5 mm.; width 3.0 mm. California (Needles).....**faustum** n. sp.

Form stout, parallel, convex, polished, rufous in color throughout, sometimes nearly black; head large, nearly three-fifths as wide as the prothorax, broadly truncate, the sides only moderately converging but strongly arcuate before the eyes, the punctures coarse, somewhat irregular, close-set but not very dense, the occipital spot well defined; prothorax large, three-fourths wider than long, the sides moderately rounded, more converging near the apex, the basal angles slightly obtuse, not rounded but not prominent, the punctures rather small medially and notably sparse, becoming gradually very coarse, dense and partially confluent laterally; scutellum moderate, punctured; elytra three-fifths longer than wide, parallel and nearly straight at the sides, abruptly and obtusely, ogivally rounded at apex in posterior fifth, with very sparse but widely impressed and distinct punctures suturally, becoming very coarse and rather close-set in regular series laterally, the lateral punctures scarcely at all muricate, the very feebly defined series toward the suture somewhat impressed; abdomen finely, sparsely punctured medially. Length 7.8-8.8 mm.; width 3.25-3.4 mm. Arizona (Nogales), — H. F. Wickham.

candidum n. sp.

Form moderately stout, parallel, polished, rufous in color throughout; head coarsely and closely, somewhat irregularly punctato-cribrate, the punctures generally somewhat separated, the occipital oval spot well defined; apex broadly truncate, the sides strongly converging and moderately arcuate before the eyes; prothorax large, more transverse than in *candidum*, nearly four-fifths wider than long, the sides moderately arcuate, more strongly converging near the apex, the basal angles right, not at all rounded but scarcely prominent, the punctures rather coarsely impressed and well separated medially, becoming rather rapidly very coarse, dense and distinctly confluent in about lateral fifth; scutellum well developed, transverse, punctured anteriorly; elytra fully two-thirds longer than wide, abruptly and obtusely, ogivally rounded at tip, more than three times as long as the prothorax, the punctures in irregular series throughout the width, fine and sparse suturally, coarse, more close-set and asperulate in more regular series laterally, the series toward the suture scarcely at all impressed; abdomen polished though slightly rugulose, rather finely but strongly, sparsely punctured medially, evidently more coarsely

on the basal segment. Length 6.7-8.0 mm.; width 2.7-3.27 mm.
 Arizona (San Bernardino Ranch, Cochise Co.), — F. H. Snow.
pallescens n. sp.

10 — Femora rather coarsely punctured, especially toward base.....11
 Femora finely, sparsely punctured.....12

11 — Body stout, oblong, very convex, parallel, shining, blackish-castaneous, the under surface, legs and antennæ concolorous and dark piceo-rufous; head rather large, especially in the male, much more than half as wide as the prothorax, broadly truncate, the sides moderately converging, strongly arcuate, the punctures coarse, deep, close-set, somewhat irregular, the occipital spot clearly limited; prothorax large, two-thirds wider than long, a little more transverse in the female, the sides evenly and rather strongly arcuate, the basal angles obtuse, neither rounded nor prominent, the punctures rather coarse, perforate and somewhat close-set, becoming gradually but little coarser but dense, coalescent and forming long rugæ laterally; scutellum moderate, transverse, finely punctate; elytra about one-half longer than wide, even shorter in the female, distinctly less than three times as long as the prothorax, obtusely ogival at tip, with series of small and close-set punctures throughout, becoming but little larger at the sides, the punctures of the intervals equally fine but sparse and confused suturally, becoming very unevenly uniserial, less close-set and much larger than those of the principal series laterally, the series near the suture finely and barely visibly impressed; abdomen moderately finely, very strongly and rather closely punctate medially. Length 6.8 mm.; width 2.9-3.1 mm. New Mexico (Deming), — H. F. Wickham.....*congruens* n. sp.

Body much less stout, strongly convex, polished, deep black in color, the legs and antennæ rufo-piceous; head rather large, almost three-fifths as wide as the prothorax in the male and but little narrower in the female, broadly truncate, the sides only moderately converging but strongly arcuate, the surface with a small impression in front of the occipital impunctate spot, the punctures coarse, deep and dense; prothorax as wide as the elytra and two-thirds wider than long in the male, a little shorter and slightly narrower than the elytra in the female, the sides moderately arcuate, more converging and becoming feebly sinuate toward apex, the basal angles right and evidently prominent, the punctures coarse, perforate and close-set, becoming gradually but little larger but dense and coalescent laterally; scutellum rather small, transverse; elytra one-half longer than wide, a little shorter in the female and sometimes with slightly arcuate sides, the apex obtusely ogival-punctures close-set in rather even, suturally impressed series, fine but strong near the suture, coarse laterally, the interstitial punctures strong but sparse and confused suturally, becoming more remote in single series and larger than the serial punctures laterally; abdomen finely but strongly, rather closely punctate medially,

a little more coarsely but more sparsely on the first segment. Length 6.2-7.6 mm.; width 2.6-3.0 mm. Arizona (near the southern boundary), — Morrison.perforatum Csy.

12 — Form strongly convex as in *congruens* and *perforatum*13
Form very moderately convex14

13 — Form and habitus nearly as in *perforatum*, with smaller head, less prominent basal angles of the prothorax and somewhat stouter form, very convex, black, polished, the legs, antennæ and under surface dark rufous to piceous; head but little more than half as wide as the prothorax in either sex, nearly as in *perforatum*, but with the feebly converging sides before the eyes more arcuate; prothorax fully three-fourths wider than long in both sexes, nearly as in *perforatum* but with the coarse punctures generally sparser, becoming rather more rapidly dense and coalescent near the sides; scutellum similar, moderate in size, punctured; elytra nearly similar but rather shorter, with somewhat more arcuate sides, about three times as long as the prothorax; abdomen rather finely but strongly, moderately closely and equally punctured medially through the first three segments. Length 6.8-7.2 mm.; width 2.7-3.1 mm. New Mexico (Deming), — H. F. Wickham.

anceps n. sp.

Form nearly as in the two preceding species but slightly less convex and with a narrower prothorax, shining, dark piceous, the legs and antennæ dark rufous; head well developed, three-fifths as wide as the prothorax, broadly truncate, the sides rather strongly converging and evenly arcuate before the eyes, with the angles broadly rounded but somewhat evident, the punctures coarse but smaller than in the two preceding species, unevenly close-set, the occipital spot large though ill-defined; prothorax rather more than two-thirds wider than long, the sides evenly and rather strongly arcuate, rather more converging and straight anteriorly, the basal angles obtuse and not prominent, the punctures not very coarse but strong and very sparse medially, becoming gradually much coarser, dense and subcoalescent laterally; scutellum rather small; elytra one-half longer than wide, not quite three times as long as the prothorax, but slightly, though evidently, wider in the male, the sides parallel and nearly straight, the apex obtusely ogival, the punctures very coarse and serial laterally, the inner series feeble, the interstitial punctures uniserial throughout except on the sutural interval; abdomen finely, sparsely punctured medially. Length 7.0 mm.; width 2.9 mm. Arizonaarizonicum n. sp.

14 — Form oblong, parallel, much less convex than the preceding species, shining, dark piceous, the under surface, legs and antennæ rufous; head moderate, though evidently more than half as wide as the prothorax in the male, the punctures coarse and unevenly close-set, the occipital spot small and well defined, the sides converging and strongly arcuate before the eyes, wholly obliterating the angles; prothorax large, rather more than two-thirds wider than

long, fully as wide as the elytra in the male, the sides evenly and moderately arcuate, the basal angles obtuse, not at all rounded or prominent, the punctures rather small and sparse but strong, becoming rapidly much coarser, dense and longitudinally rugose in almost lateral fourth, again becoming less rugose along the reflexed margins as generally the case; scutellum rather small, transverse, constricted at base; elytra one-half longer than wide, three times as long as the prothorax, ogivally obtuse in nearly apical third, the punctures close-set in unimpressed series, small suturally, only moderately coarse laterally, the interstitial punctures unevenly uniserial except suturally; abdomen distinctly, rather sparsely punctured medially, unusually coarsely so on the first segment; inferior emargination of the genital segment angular. Length 7.2 mm.; width 2.8 mm. Arizona (probably near Yuma)*socium* n. sp.

Form nearly as in *socium* and similar in coloration and in its moderate convexity; head in the male nearly as in *socium* but with the angles less obliterated and the punctures decidedly smaller, more evenly distributed, very close-set but not crowded, the occipital spot very well defined; prothorax in the male much shorter and more transverse, fully four-fifths wider than long, otherwise as in *socium*, the punctures rather less sparse medially and less coarse laterally; scutellum a little larger; elytra similar in dimensions but more abruptly, obtusely ogival in but slightly more than apical fourth, slightly more than three times as long as the prothorax and equal in width, the punctures disposed as in *socium* but smaller throughout and more strongly muricate laterally, very fine, sparse and feeble suturally; abdomen minutely, sparsely punctured medially, but little less finely on the first segment, the inferior apical emargination of the genital segment broadly parabolic. Length 6.7 mm.; width 2.5 mm. Arizona (probably Gila valley).....*subsimile* n. sp.

15 — Body oblong, only moderately convex, polished, black or piceous-black, the legs and antennæ dark rufous; head short and transverse, small, not distinctly more than half as wide as the prothorax, the portion before the eyes unusually short, barely twice as long as the eyes, truncate, the sides strongly converging and arcuate, the angles somewhat evident, the punctures coarse, unevenly close-set, the occipital spot rather large and well defined; prothorax scarcely visibly less than twice as wide as long, the sides moderately arcuate, the basal angles rather more than right, not prominent, the punctures rather strong, well separated, becoming rapidly coarse, dense and subconfluent laterally; scutellum rather small, feebly punctured basally; elytra parallel, with nearly straight sides, somewhat more than one-half longer than wide, three and one-half times as long as the prothorax and very slightly wider, the apex obtusely ogival; punctures not very close-set in almost even series, fine suturally, coarse and somewhat muricate laterally, the intervals uniserially and more loosely

punctate, the sutural interval alone with confused punctures; abdomen medially and femora minutely, sparsely punctured throughout. Length 7.7 mm.; width 3.0 mm. Arizona.

parvuliceps n. sp.

Body more broadly oblong and still less convex, more depressed than in almost any other species, dark rufo-piceous, the legs and antennæ paler, polished; head moderate, but little more than half as wide as the prothorax, the sides much less converging than usual, arcuate, becoming parallel toward the eyes, the apex truncate, the punctures only moderately coarse, dense, confluent toward the eyes, the occipital spot small, sometimes almost wanting; prothorax but very slightly less than twice as wide as long, the sides moderately arcuate, more converging apically, the basal angles nearly right, not at all prominent, the punctures rather small but deep, moderately separated, becoming very gradually but moderately coarse and dense and forming long rugæ laterally; scutellum rather well developed, transverse, sparsely punctured; elytra as in *parvuliceps*, more than three times as long as the prothorax but not wider, the punctures smaller throughout, especially toward the sides and more irregularly disposed suturally; abdomen finely, sparsely and evenly punctured medially through the first three segments. Length 6.9-7.2 mm.; width 3.18-3.22 mm. Arizona.....*rufopiceum* n. sp.

Body relatively shorter, stouter, more oblong and rather more convex, shining, piceous-black, the under surface dark, the legs and antennæ pale, rufous; head well developed, almost three-fifths as wide as the prothorax, coarsely, not very densely punctate; prothorax twice as wide as long, a little less in the male, the sides evenly and unusually strongly rounded, the basal angles very obtuse, not rounded or prominent, the punctures not coarse but strong, well separated, becoming rapidly very coarse, dense and subconfluent in almost lateral fourth; scutellum well developed, transverse, punctured except apically; elytra not quite one-half longer than wide, about three times as long as the prothorax and scarcely perceptibly wider, very rapidly and obtusely ogival at apex, the punctures rather close-set in somewhat irregular series, moderately small and strong suturally, coarse and muricate laterally, the interstitial punctures sparse and broadly confused suturally, irregularly serial laterally, the subsutural series scarcely at all impressed; abdomen not very coarsely but unusually strongly, conspicuously, moderately loosely and evenly punctured medially, somewhat more coarsely on the basal segment; femora minutely, sparsely punctured. Length 7.2-7.75 mm.; width 3.28-3.35 mm. Texas (El Paso)...*saginatium* n. sp.

16 — Form parallel, moderately slender and not very convex, polished, black with feeble piceous tinge, the legs and antennæ rufous; head nearly three-fifths as wide as the prothorax, truncate, the sides moderately convergent and very strongly arcuate, becoming

parallel toward the eyes, the punctures very coarse, deep and close-set, the occipital spot feeble; prothorax fully three-fourths wider than long, the sides evenly, rather strongly arcuate, but little more converging anteriorly, the basal angles obtuse, not rounded or prominent, the punctures coarse, perforate, unevenly distributed but generally rather close-set, becoming rather abruptly still coarser, dense and subconfluent in lateral fifth or sixth; scutellum moderate, transverse; elytra three-fifths longer than wide, as wide as the prothorax and about three and one-half times as long, rather gradually and not very obtusely ogival behind, the punctures rather small but strong, sparse and for the most part confused toward the suture, coarse, muricate and close-set in series laterally, the interstitial punctures subequal to the serial, more widely spaced in tolerably regular single series except toward the suture; abdomen finely rugulose, finely but strongly, moderately sparsely punctured medially. Length 7.2 mm.; width 2.75 mm. Arizona (southern), — Morrison.

carbonatum Csy.

Form more slender, elongate, parallel, moderately convex, polished, deep black, the legs and antennæ rufous; head well developed, moderately coarsely, regularly and not very densely punctate, the occipital spot large but ill-defined, the sides moderately converging and strongly arcuate but not quite becoming parallel near the eyes; prothorax three-fifths wider than long, the sides moderately arcuate, becoming more strongly convergent and nearly straight at apex, the basal angles obtuse, not rounded but not at all prominent, the punctures not notably coarse but deep and sparse medially, becoming rather rapidly coarse, dense and subcoalescent in about lateral fifth; scutellum moderate, punctate at base; elytra fully two-thirds longer than wide, barely perceptibly wider than the prothorax and a little more than three times as long, gradually parabolic at tip, the punctures moderately close-set in rather regular series throughout, fine suturally, moderately coarse laterally, the interstitial punctures similar, forming single series, confused only on the sutural interval; abdomen feebly rugulose, minutely, sparsely punctate medially. Length 7.0 mm.; width 2.5 mm. Arizona (Phoenix).

procerum n. sp.

Form very slender as in *procerum* and similar in lustre and coloration; head relatively somewhat larger, between three-fifths and two-thirds as wide as the prothorax, the sides less converging and still more strongly arcuate, becoming almost parallel toward the eyes, the punctures deeper, rather coarse, separated generally by their own widths, the occipital smooth space obsolete and occupied by sparser punctures; prothorax much shorter, nearly three-fourths wider than long, the sides moderately arcuate, becoming more convergent and subsinuate anteriorly, the basal angles nearly right and minutely prominent, the punctures fine and rather sparse medially, much finer than in *procerum*, becom-

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ing abruptly very coarse and close-set but not contiguous in about lateral fifth; scutellum larger, rather well developed; elytra not quite so elongate, barely three-fifths longer than wide and gradually more angular and ogival at apex, scarcely wider than the prothorax and three and one-half times as long, almost similarly punctate; abdomen nearly smooth, finely, sparsely punctate medially. Length 7.2 mm.; width 2.5 mm. Arizona (locality unrecorded).....**prolixum** n. sp.

Form very slender, much smaller in size, more convex and sub-cylindrical, generally shining, piceous-black, sometimes paler anteriorly and beneath, the legs and antennæ rufous; head relatively large, more than three-fifths as wide as the prothorax, coarsely, unevenly punctate, with a feeble impression before the occipital smooth spot, the sides moderately converging and strongly arcuate; prothorax two-thirds wider than long, the sides evenly and strongly arcuate, more converging and subsinuate anteriorly, the basal angles obtuse, not at all blunt or prominent, the punctures rather coarse and sparse medially, becoming somewhat abruptly much coarser, dense and coalescent near the sides; scutellum rather small, punctate; elytra one-half to three-fifths longer than wide, somewhat abruptly and very bluntly ogival at apex, about as wide as the prothorax and three to three and one-half times as long, probably according to sex, rather strongly but not very closely punctate even laterally, where the punctures are coarse and serial, largely confused toward the suture, the surface normally polished but sometimes dull because of stronger micro-reticulation (*sculptile*); abdomen rather strongly and sparsely punctured medially. Length 4.8-6.0 mm.; width 2.1-2.27 mm. Arizona (near the southern boundary), Morrison [= *sculptile* Csy.].....**papagonum** Csy.

17 — Body only moderately convex, less stout and smaller in size...18
Body large, stout and rather strongly convex19

18 — Form oblong, dark rufo-piceous, the legs and antennæ paler rufous, shining; head moderate, a little more than half as wide as the prothorax, not very coarsely but closely punctate, the occipital smooth spot well defined, the sides moderately convergent and strongly arcuate, becoming nearly parallel toward the eyes; prothorax three-fourths wider than long, the sides subevenly and distinctly arcuate, the basal angles obtuse, not blunt but not at all prominent, the disk widest slightly behind the middle, rather finely but strongly, only moderately sparsely punctate, becoming rapidly somewhat coarsely, very densely and coalescently so in about lateral fifth; scutellum moderate, transverse, punctulate; elytra one-half or slightly more, longer than wide, rather gradually ogival behind in nearly apical third, as wide as the prothorax and a little more than three times as long, the punctures small and sparse but strong and largely confused near the suture, coarse and alternately closer or more widely spaced in series laterally; abdomen minutely, sparsely punctured medially. Length 6.0-6.5 mm.; width 2.4-2.7 mm. Arizona.....**fusculum** Csy.

Form elongate, parallel, shining, piceous-black, the legs and antennæ rufous; head short and transverse, broadly truncate at apex, evidently more than half as wide as the prothorax, the sides very feebly converging and strongly arcuate, becoming parallel toward the eyes, the punctures coarse, close-set, the occipital spot well defined; prothorax rather more than three-fourths wider than long, widest near basal third, the sides evenly and distinctly arcuate, the basal angles as in *fusculum*; disk with moderately small, deeply impressed, not very sparse punctures, abruptly but only moderately coarse, dense and forming rugæ in lateral fifth; scutellum well developed, transverse, punctulate; elytra formed as in *fusculum*, but more elongate, two-thirds longer than wide, as wide as the prothorax and almost four times as long, the punctures rather sparse but strong, close-set in series throughout, coarse laterally, the interstitial punctures less close-set in single series except on the first and second intervals; abdomen minutely and sparsely punctured medially. Length 7.7 mm.; width 3.0 mm. Arizona (probably near Yuma).

truncaticeps n. sp.

19 — Body elongate, parallel, very large in size, shining, black, the legs and antennæ piceo-rufous; head well developed, opaque, not very coarsely or deeply, regularly punctato-cribrate, the punctures separated by their own widths, the occipital spot small but well defined, the sides moderately arcuate and converging, with the angles somewhat obvious though broadly rounded; prothorax large, nearly three-fourths wider than long, widest slightly behind the middle, the sides moderately arcuate, strongly converging and becoming straight anteriorly, the basal angles right and notably prominent, the sides before them being sinuate for a short distance; disk coarsely, deeply and somewhat closely punctate, gradually very coarsely and densely so laterally; scutellum moderate, transverse, strongly and densely punctate; elytra three-fifths longer than wide, as wide as the prothorax and three and one-half times as long, rapidly and obtusely ogival at apex, rugose by oblique light throughout, strongly but sparsely, in great part confusedly punctured suturally, very coarsely and closely in series laterally; abdomen feebly rugulose, rather finely but strongly, not closely punctate medially, more coarsely on the basal segment. Length 8.7–9.0 mm.; width 3.5–3.75 mm. Arizona (Nogales), — H. F. Wickham.....**crassum** n. sp.

Body more oblong-suboval, shining, dark castaneous, the under surface, legs and antennæ rufous; head well developed, subopaque, not very coarsely but deeply, subevenly punctate, the punctures separated by their own widths, the occipital spot well defined, rather small, the sides rather strongly converging and moderately arcuate; prothorax large, two-thirds wider than long, widest near basal third, the sides rather strongly arcuate, very converging and becoming straight anteriorly, the basal angles obtuse, not blunt but not at all prominent; disk strongly though only moderately

coarsely and rather closely punctured, becoming gradually moderately coarsely, very densely and coalescently so laterally; scutellum moderate, punctate in basal half; elytra one-half longer than wide, very slightly wider than the prothorax and barely three times as long, obtusely and ogivally rounded behind in nearly apical third, the sides very feebly arcuate, the punctures coarse, strongly muricate and forming close-set series laterally, smaller but still strong and confused near the suture; abdomen minutely, sparsely and very inconspicuously punctured medially. Length 8.0 mm.; width 3.5 mm. California (Colorado Desert).

egregium n. sp.

20 — Body stout in form, of large size..... 21
 Body more elongate and smaller in size..... 22

21 — Form broadly oblong-elongate, only moderately convex, shining, piceous-black, the legs and antennæ rufous; head well developed, much more than half as wide as the prothorax, the sides moderately converging and arcuate, the frontal margin broadly and distinctly sinuate, the punctures rather small but perforate, separated by nearly twice their own widths on the vertex, the occipital smooth spot rounded and sharply defined; prothorax short, four-fifths wider than long, the sides parallel, subevenly and distinctly arcuate, the basal angles obtuse, not blunt or at all prominent, the punctures rather small but strong and sparse near the middle, gradually becoming very coarse and finally dense but not very coalescent laterally; scutellum moderate, transverse; elytra three-fifths longer than wide, not quite four times as long as the prothorax and about a fifth wider, obtusely ogival at apex, the sides rounding slightly at base to the humeral angles, the punctures not very close-set in series throughout, moderately small but strong suturally, coarse and muricate laterally, not at all larger or confused above the humeri, the interstitial punctures nearly similar, more widely spaced in single series, confused on the first two intervals; abdomen feebly rugulose, finely but strongly, sparsely punctured medially. Length 9.1 mm.; width 3.5 mm. Arizona (locality unrecorded)... *extensum* n. sp.

Form and coloration nearly similar; head subsimilar, except that the frontal margin is evenly and rectilinearly truncate and the punctures very much coarser, shallow and separated by about their own widths, the occipital smooth spot small and ill-defined; prothorax similar, except that the sides are irregularly rounded, more abruptly convergent and straight or subsinuate anteriorly, the disk widest before the middle, the basal angles more nearly right and very feebly prominent, the punctures strong and rather sparse medially, becoming more abruptly very coarse, densely crowded but not very coalescent in about lateral fifth; scutellum moderate; elytra fully two-thirds longer than wide, more obtusely, ogivally rounded at apex, scarcely a sixth wider than the prothorax and not quite four times as long, the sides similarly rounding at base

to the humeral angles, the sculpture nearly as in *extensum*, except that the punctures become much coarser, denser and confused above the humeri for a short distance from the base; abdomen feebly rugulose, finely, sparsely punctate medially. Length 8.0-8.5 mm.; width 3.3-3.4 mm. Arizona (southern), Morrison.
dubium Csy.

Form rather less elongate and very slightly more convex than in the two preceding species, black, the under surface piceous, the legs and antennæ rufous, polished; head almost three-fifths as wide as the prothorax, rectilinearly and broadly truncate, the sides moderately converging and strongly arcuate, the punctures coarse, deep and very close, generally separated by less than their own widths, the occipital spot more or less small but well defined; prothorax less transverse, three-fourths wider than long, the sides variably but moderately arcuate, the disk widest from behind to somewhat before the middle, the basal angles obtuse, not at all blunt or prominent; punctures rather coarse, deep, moderately sparse, becoming gradually coarse, dense but only slightly confluent in about lateral fourth; scutellum well developed; elytra one-half to slightly more, longer than wide, very obtusely ogival at apex, about a sixth wider than the prothorax and three and one-half times as long, the sides feebly rounding to the humeri basally, the humeri evidently exposed at base, the punctures nearly as in *dubium* but rather less confused, though becoming coarser, above the humeral callus; abdomen finely, moderately sparsely punctured medially. Length 8.2-8.6 mm.; width 3.3-3.5 mm. Arizona (Phœnix).....**phœnicis** n. sp.

22 — Elongate, rather strongly convex, polished, black to rufous, the legs and antennæ paler, rufous; head moderate, transversely truncate, the sides only feebly converging and moderately arcuate, not becoming quite parallel toward the eyes, the punctures coarse, deep, even, distinctly separated, the occipital smooth spot irregular and ill-defined; prothorax fully three-fourths wider than long, the sides rather strongly arcuate, more converging, straight and with the edge just visibly serrulate anteriorly, the basal angles more or less minutely and feebly prominent; punctures rather coarse, deep, moderately separated, becoming more or less gradually coarse and dense laterally; scutellum moderate; elytra more than one-half to nearly three-fifths longer than wide, evidently wider than the prothorax and about three and one-half times as long, obtusely ogival at tip, the punctures moderately coarse and close-set in series laterally, alternating with the more widely spaced and somewhat larger uniserial punctures of the intervals; abdomen finely, sparsely punctate medially. Length 6.8-7.4 mm.; width 2.9-3.2 mm. Arizona (Nogales), — H. F. Wickham**hebes** n. sp.

Elongate and rather less convex, brownish-rufous in color, shining; head rather well developed, truncate, the sides only moderately

converging and strongly arcuate, becoming subparallel near the eyes, the punctures coarse, irregular, more or less dense, the occipital spot uneven and ill-defined; prothorax short, fully four-fifths wider than long, widest from a little behind to before the middle, the sides moderately arcuate, more converging and sometimes straighter anteriorly, the basal angles obtuse, not blunt or prominent, the punctures sparse and moderately coarse, becoming rather rapidly dense and coarser in about lateral fifth; scutellum rather small; elytra a little more than one-half longer than wide, very distinctly wider than the prothorax and about three and one-half times as long, obtusely ogival at tip, the sides rounded toward the humeri, punctured nearly as in *hebes*, the abdomen finely, sparsely punctured medially. Length 6.8–6.9 mm.; width 2.7–2.8 mm. Arizona.....*rufescens* n. sp.

23 — Base of the prothorax rather distinctly narrower than the base of the elytra; scutellum rather well developed, transverse.....24

Base of the prothorax equal in width to the base of the elytra.....25

24 — Form oblong, rather convex, shining, the elytra scarcely at all alutaceous at tip, dark castaneous in color, the legs rufous; head short, strongly but not densely punctate, with a large ill-defined occipital impunctate area, the sides converging and feebly arcuate before the eyes to the broadly rounded angles; prothorax about three-fourths wider than long, widest at the middle, the sides rather strongly, subevenly arcuate, the apex only very slightly narrower than the base; punctures strong but rather sparse, very gradually and slightly coarser, close and longitudinally confluent toward the sides; scutellum polished, with a few fine punctures at base only; elytra rather less than one-half longer than wide, with series of rather coarse punctures toward the sides, the interstitial series similar but rather less approximately punctate; abdomen finely but strongly, somewhat sparsely punctured medially. Length 6.8 mm.; width 3.0 mm. Texas (near El Paso).

congener Csy.

Form somewhat similar but smaller and less coarsely sculptured, polished, pale testaceous, the abdomen darker except at tip; head relatively rather finely and loosely punctate, without vestige of an impunctate occipital area, the sides before the eyes converging and evenly, strongly arcuate throughout; prothorax smaller than usual, almost twice as wide as long, rather finely, sparsely punctate, becoming somewhat abruptly coarsely and confluent so in about lateral fourth, except close to the margin, where the coarse punctures are simply contiguous, the sides evenly, strongly arcuate, the apex distinctly narrower than the base; scutellum impunctate, polished; elytra one-half longer than wide, with series of moderately coarse punctures rather well separated, those of the interstitial series nearly similar. Length 6.0 mm.; width 2.8 mm. Texas (El Paso).....*politum* Csy.

25 — Body more or less pale testaceous in color throughout.....26

Body dark castaneous to black.....27

26 — Form very stout, oblong-suboval, only moderately convex and shining; head with strongly converging, broadly arcuate sides before the eyes, the punctures rather coarse and deep but well separated, the middle of the occiput largely impunctate; prothorax nearly four-fifths wider than long, rather strongly, moderately sparsely punctured, gradually densely, more coarsely and confluent so broadly toward the sides, the latter broadly arcuate, somewhat abruptly converging and feebly sinuate anteriorly, the apex deeply sinuate, much narrower than the base; scutellum very well developed, strongly transverse, arcuato-truncate; elytra distinctly less than one-half longer than wide, very obtusely ogival at tip, with the usual punctured series, the punctures becoming very coarse and close-set in all series toward the sides, more or less confused near the humeral callus; abdomen sparsely and very unequally punctate, very coarsely toward the sides. Length 7.0–7.4 mm.; width 2.8–3.3 mm. California (Barstow).

testaceum n. sp.

Form moderately stout, polished, much smaller in size; head with the sides before the eyes less converging and strongly, evenly arcuate, becoming parallel near the eyes, the punctures close-set, moderately coarse; prothorax large, three-fourths wider than long, subparallel, the sides evenly and rather strongly arcuate, the apex but little narrower than the base, as wide at the middle as the widest part of the elytra, coarsely, deeply, perforately and rather closely punctured, the punctures very gradually still coarser and longitudinally confluent broadly toward the sides; scutellum small, slightly transverse, rounded behind; elytra scarcely one-half longer than wide, with series of strong, close-set punctures, those of the single interstitial series still coarser and very widely separated; abdomen sparsely but rather strongly punctured. Length 6.0 mm.; width 2.5 mm. Texas (locality unknown).

ludificans n. sp.

Form narrowly elongate-suboval, strongly convex, shining; head nearly as in *ludificans* throughout; prothorax relatively small, distinctly narrower than the elytra, three-fourths wider than long, subparallel, evenly and distinctly arcuate at the sides, the apex but slightly narrower than the base, the punctures strong, rather sparse, gradually coarse and elongate and then very coarse and confluent toward the sides; scutellum very small, but little wider than long; elytra more elongate, three-fifths longer than wide, with regular principal and subequal interstitial series of punctures, becoming very coarse and moderately close-set toward the sides, the interstitial punctures, as usual, rather more widely separated than those of the principal series; abdomen finely, sparsely punctured toward the middle. Length 5.6 mm.; width 2.28 mm. Arizona (southern).....*piceum* Csy.

27 — Form more parallel, the prothorax about as wide as any part of the elytra28

Form somewhat inflated posteriorly, the prothorax evidently narrower than the widest part of the elytra; wings probably less developed.

29

28—Form slender, convex, shining, black, the legs piceo-rufous; head coarsely, closely punctate, with a small irregular occipital impunctate spot, the sides before the eyes converging and evenly, strongly arcuate to the truncate apex; prothorax unusually convex, well developed, fully three-fourths wider than long, subparallel, evenly and rather strongly arcuate at the sides, the apex but little narrower than the base, the basal angles minutely prominent, the punctures somewhat coarse, deep, well separated, becoming only slightly coarser toward the sides, somewhat abruptly dense and confluent in not more than lateral fifth; scutellum well developed, transverse, broadly angulate at tip; elytra not quite three-fifths longer than wide, strongly punctured in not very close-set series, the punctures of the intervals similar but still more widely spaced; abdomen finely but deeply, not very sparsely punctate medially. Length 5.7–6.0 mm; width 2.4 mm. Arizona (southern).

emarginatum Csy.

Form still more elongate and slender than in *emarginatum*, black, more piceous beneath, the legs and antennæ rufous, the elytral suture rufescent, rather shining; head fully two-thirds as wide as the prothorax, coarsely, not very deeply, moderately closely punctate, the occipital spot large and well defined, the sides converging and evenly, moderately arcuate; prothorax scarcely two-thirds wider than long, parallel, the sides evenly and moderately arcuate, the basal angles nearly right, scarcely prominent, the punctures moderately coarse, rather sparse, becoming somewhat abruptly coarse, dense and confluent in less than lateral fifth; scutellum moderate, transverse; elytra fully three-fifths longer than wide, rapidly and ogival rounded at tip, more obtusely than in *emarginatum*, barely three times as long as the prothorax as in that species, the punctures more close-set in the series, less coarse and strongly muricate laterally, the interstitial series regular except on the first and second intervals, which are confusedly punctate; abdomen finely and sparsely but distinctly punctured medially. Length 6.0 mm.; width 2.3 mm. Arizona (Riverside),—H. F. Wickham.*fatigans* n. sp.

Form somewhat similar but stouter, parallel, the size larger, deeper black, more highly polished, the legs and antennæ rufous, rather strongly convex; head nearly three-fifths as wide as the prothorax, coarsely, evenly and densely cribrate, the punctures nearly in contact but not crowded, the occipital spot irregular and ill-defined, the sides moderately converging and nearly straight from the eyes to the broadly rounded angles; prothorax almost four-fifths wider than long, parallel, the sides subevenly and rather strongly arcuate, the basal angles right, minutely and distinctly prominent, the punctures moderate and sparse medially, becoming gradually very coarse and closer and finally dense and coalescent

laterally; scutellum small, transverse; elytra but little more than one-half longer than wide, obtusely and ogivally rounded at tip, barely three times as long as the prothorax, the punctures rather strong, sparse, smaller and confused near the suture, coarse and rather close-set in series laterally, with the interstitial punctures still larger and more distant in the series, all the punctures much coarser and closer near the humeri; abdomen not very finely or sparsely and conspicuously punctured medially. Length 7.3 mm.; width 2.85 mm. Texas (El Paso).....**cribriceps** n. sp.

Form very stout, convex, shining, rufo-castaneous, the elytra sometimes picescent, the under surface and legs paler, rufous; head relatively rather small, scarcely more than half as wide as the prothorax, coarsely, deeply, closely and perforately punctate, the sides rather strongly converging and broadly, evenly arcuate; prothorax not quite twice as wide as long, distinctly narrowed toward apex, the sides strongly, subevenly arcuate, the punctures strong, sparse, gradually becoming larger and closer laterally, very coarse and dense though imperfectly confluent near the sides; scutellum transverse, minutely punctate; elytra short, barely one-half longer than wide, the serial punctures rather close-set, the interstitial larger and more widely spaced; abdomen strongly but finely, moderately sparsely punctate toward the middle. Length 6.0-6.3 mm.; width 2.7-2.8 mm. Texas (Laredo).

cognitum n. sp.

29—Form moderately stout, convex, dark castaneous, the under surface and legs rufo-piceous, moderately shining; head with moderately small, deep and well separated punctures, the sides before the eyes converging and broadly, evenly arcuate for an unusually long distance to the truncate apex; prothorax large, only very slightly narrower than the elytra, fully three-fourths wider than long, evidently narrowed at apex, the sides moderately and subevenly arcuate, the punctures toward the middle not large but very deep and rather sparse, gradually becoming very coarse and close, elongate but not confluent toward the sides; scutellum small, but little wider than long; elytra one-half longer than wide, with broadly arcuate sides and obtusely ogival apex, strongly punctured in not very close-set series, the punctures of the interstitial series widely separated; abdomen minutely, sparsely punctate medially. Length 6.0-6.5 mm.; width 2.6-2.78 mm. California (Barstow)**concors** n. sp.

30—Pronotum sparsely punctured, becoming more or less abruptly very much more coarsely so in about lateral fifth.....31

Pronotum more coarsely, deeply and more or less closely punctured, very gradually and less notably more coarsely so broadly toward the sides.....35

31—Pronotal punctures in the broad median area strong and deep, much larger than in the four following species. Body small in size, stout, oblong-oval, convex, rather shining, black, the legs

rufous; head moderately coarsely, deeply and not very closely punctate, with a large occipital impunctate spot, the sides before the eyes obviously converging and evenly, strongly arcuate; prothorax nearly four-fifths wider than long, only very slightly narrower than the widest part of the elytra, the two bases equal, the apex much narrower than the base, strongly sinuate, widest rather behind the middle, with the sides subevenly and strongly arcuate, the lateral punctures coarse and anastomosing, forming long irregular rugæ; scutellum moderate, slightly transverse, angulate; elytra short, not more than two-fifths longer than wide, narrowly parabolic at tip, the series somewhat uneven and with not very coarse punctures laterally, the punctures of the interstitial series more widely spaced; abdomen sparsely punctulate medially. Length, 5.7-6.0 mm.; width 2.4-2.5 mm. California (San Diego).....*tersum* n. sp.

Pronotal punctures in a broad median area very minute and sparse..32

32 — Elytral series distinct to the suture, although composed of very fine punctures toward the latter and with the interstitial punctures there confused as usual. Southern California.....33

Elytral punctures very minute, sparse and wholly confused broadly toward the suture. Utah.....34

33 — Form narrowly subcylindric, parallel and strongly convex, rather shining, castaneous, the legs dark rufous, with the hind tarsi much shorter than the tibiæ; head broad, with rather coarse, deep, perforate and somewhat widely separated punctures, which become finer and sparse at the middle of the occiput, the sides strongly converging and broadly arcuate before the eyes; prothorax large, fully as wide as the elytra, barely three-fifths wider than long, widest somewhat behind the middle, with the sides evenly, rather feebly arcuate, the apex much narrower than the base, the punctures near the sides coarse, elongate and rather close-set but not longitudinally confluent; scutellum moderate; elytra fully three-fifths longer than wide but only two and one-half times as long as the prothorax, the serial punctures laterally becoming especially coarse and close-set toward the humeri. Length 6.7 mm; width 2.75 mm. Southern California.

cylindricum Csy.

Form nearly as in *cylindricum* but shorter, with a more transverse prothorax, convex, rather shining but with a feeble opalescent lustre, dark piceous, the legs paler; head well developed, with the sides moderately converging and strongly arcuate, becoming subparallel near the eyes, the punctures deep, only moderately coarse and rather close-set, becoming much coarser and sparser along the base and toward the eyes, the occipital smooth spot large but ill-defined; prothorax large, four-fifths wider than long, widest behind the middle, the sides distinctly arcuate, becoming gradually convergent and straighter anteriorly, the basal angles nearly right and evidently prominent, the punctures medially

sparse and small but less minute than in *cylindricum*, moderately coarse, dense, coalescent and forming long rugæ in lateral fifth; scutellum very well developed, strongly transverse; elytra evidently less than one-half longer than wide, as wide as the prothorax and about two and one-half times as long, very obtusely and ogivally rounded at tip, the sides feebly arcuate, the punctures suturally very fine and sparse, becoming coarse and close-set in the series laterally, where the punctures of the interstitial series are equal in size but much more widely spaced; abdomen minutely, sparsely punctured medially. Length 6.4-6.8 mm.; width 2.75-2.9 mm. Nevada (Las Vegas)nevadense n. sp.

Form stout, especially in the female, moderately convex, oblong-sub-oval, shining, the elytra feebly alutaceous, castaneous, the under surface and legs rufous; head finely, sparsely punctate, more closely on the front, the occiput feebly, longitudinally rugulose, the sides before the eyes strongly converging and broadly arcuate; prothorax about as wide as the elytra, transverse, four-fifths wider than long or even more, widest and prominently rounded at the sides just behind the middle, thence strongly narrowed and sometimes with subsinuate sides to the deeply sinuate apex, the basal angles minutely subprominent; punctures toward the sides coarse and close but only imperfectly confluent; scutellum large and well developed, strongly transverse, impunctate except finely at base; elytra only two-fifths longer than wide but almost three times as long as the prothorax, the serial punctures only moderately coarse, subelongate and close-set toward the sides, those of the interstitial series more widely spaced; abdomen very sparsely punctulate medially. Length 6.4-7.5 mm.; width 2.6-3.25 mm. California (Kern Co.)..... gulosum n. sp.

34 — Body stout, elongate-oval, rather convex, somewhat strongly shining, castaneous to dark testaceous, the legs dark rufous; head closely and rather coarsely punctured, the sides before the eyes only moderately converging and broadly arcuate; prothorax distinctly narrower than the median parts of the elytra, three-fourths wider than long, obviously narrowed at apex and deeply sinuate, widest just behind the middle, the sides evenly and moderately arcuate, the punctures more broadly dense toward the sides than in the three preceding species, moderately coarse and longitudinally confluent, forming long rugæ; scutellum large, very strongly transverse, finely punctate throughout; elytra two-fifths longer than wide, ogival at tip, the sides broadly, feebly arcuate, the series on the flanks rather irregular and composed of unusually small close-set punctures. Length 6.8-7.0 mm.; width 2.8-3.0 mm. Utah (southwestern).....subovale n. sp.

35 — Scutellum large, strongly transverse, in great part finely punctate. Form stout, oblong-oval, convex, moderately shining, black, the legs very dark rufous; head broad, with slightly separated and moderately coarse deep punctures, longitudinally

confluent near the orbital carinæ, the sides before the eyes strongly converging and strongly, evenly arcuate, becoming subparallel near the eyes; prothorax large, subequal in width to the elytra, fully four-fifths wider than long, distinctly narrowed toward the broadly sinuate apex, the sides evenly and moderately arcuate; punctures small but deep and rather close-set, gradually moderately coarse and forming long rugæ toward the sides; elytra two-fifths longer than wide, obtusely ogival at tip, just visibly inflated posteriorly, the series laterally composed of only moderately coarse, elongate and approximate punctures, those of the intervals almost similar; abdomen finely and sparsely but strongly punctate. Length 7.0 mm.; width 3.15 mm. California (Catalina Island).....*insulare* n. sp.

Scutellum small or moderate.....36

36—Sides of the prothorax more or less abruptly, strongly converging and straight or feebly sinuate toward apex.....37

Sides of the prothorax evenly rounded.....38

37—Body stout, oblong-oval, convex, shining, the elytra slightly alutaceous, black, the legs very dark rufo-piceous; head not very coarsely, irregularly and in great part rather sparsely punctate, the sides before the eyes strongly converging, broadly and evenly arcuate; prothorax four-fifths wider than long, the sides subparallel or very feebly diverging and nearly straight from the basal angles to slightly before the middle, there rather prominently rounded, the apex much narrower than the base and very deeply sinuate; punctures strong and close-set, becoming only slightly coarser but dense and longitudinally confluent toward the sides; scutellum transverse, broadly rounded, impunctate; elytra one-half longer than wide, slightly wider than the prothorax, very obtuse at apex, the sides very slightly arcuate, the series somewhat uneven, composed of very coarse punctures which are broadly confused basally toward the humeral callus; abdomen finely rugulose, finely, sparsely punctate. Length 7.2 mm.; width 3.22 mm. California (San Bernardino Co.).

gravidum n. sp.

Body stout, shorter, oblong-oval, moderately convex and shining, castaneous, the legs rufous; head rather coarsely, perforately, somewhat unevenly and moderately closely punctate, the sides before the eyes distinctly converging, evenly and strongly arcuate; prothorax widest behind the middle, where the sides are broadly, strongly arcuate, thence converging and less arcuate to the base, the apex much narrower than the base and deeply sinuate, the punctures strong and close-set, becoming but little coarser but longitudinally confluent toward the sides; scutellum small, wider than long, angulate; elytra two-fifths longer than wide, very obtusely parabolic at tip, only very slightly wider than the prothorax, the sides evidently arcuate, the series in great part very uneven, composed of close-set, moderately coarse punctures,

those of the intervals widely spaced; abdomen finely, sparsely punctate medially. Length 6.5 mm.; width 2.95 mm. Probably southern California.....*edax* n. sp.

Body decidedly less stout, convex, elongate-oval, rather shining, dark blackish-castaneous, the legs rather bright rufous; head rather finely, irregularly and moderately closely punctured, the sides moderately converging and evenly arcuate before the eyes, prothorax much less transverse, scarcely more than two-thirds wider than long, widest behind the middle, the sides almost evenly arcuate, becoming feebly sinuate near the apex, which is much narrower than the base and rather deeply sinuate, the punctures moderately large, deep and well separated, becoming much coarser, dense and longitudinally confluent toward the sides; scutellum moderately large, minutely punctate, subangulate; elytra nearly one-half longer than wide, obtusely ogival at tip, evidently wider than the prothorax, with arcuate sides, the series somewhat uneven, with more widely spaced punctures than in *edax* and becoming less confused at base; abdomen finely, very sparsely punctate medially. Length 6.4 mm.; width 2.8 mm. California (Colorado Desert), — G. W. Dunn.....*molestum* n. sp.

Body shorter and stouter than in any of the three preceding species; black, the legs dark rufo-piceous, moderately shining, the entire elytra opaque; head well developed, not very coarsely or closely punctate, the occipital spot ill-defined, the sides feebly converging but strongly arcuate, becoming subparallel for some distance before the eyes; prothorax almost three-fourths wider than long, the sides distinctly arcuate, more converging and straight anteriorly, the basal angles obtuse, not blunt or prominent, the punctures rather coarse, perforate, moderately separated medially, becoming gradually coarse and dense toward the sides; scutellum moderate, tumid, punctate; elytra short, a third longer than wide, rapidly narrowed and very obtusely ogival in apical two-fifths, the sides feebly arcuate, the disk distinctly wider than the prothorax and barely two and one-half times as long, the punctures only moderately coarse, very strongly muricate and close-set in even series laterally, with the interstitial punctures less conspicuous and more widely spaced, the punctures small, sparse, muricate and largely confused suturally; abdomen polished, finely, moderately sparsely but distinctly punctate medially. Length 6.6 mm.; width 2.9 mm. California (southern).

opacipenne n. sp.

38 — Form rather stout, oblong, subparallel, rather convex, black, the legs somewhat bright rufous; head somewhat coarsely, perforately and rather closely punctate, the sides before the eyes strongly converging, evenly and very moderately arcuate; prothorax about as wide as the elytra, the sides evenly, rather strongly arcuate, slightly more converging anteriorly than posteriorly, the apex moderately sinuate; punctures strong, somewhat uneven and rather close-set, becoming gradually much coarser and longi-

nally confluent toward the sides; scutellum moderately large, transversely oval; elytra distinctly less than one-half longer than wide, equal in width to the prothorax and between two and three times as long, obtusely ogival at tip, the sides very slightly arcuate, the series more or less uneven, composed of moderately coarse, not very close-set punctures, which are largely confused toward base; abdomen minutely, sparsely punctate medially. Length 6.2-7.0 mm.; width 2.65-2.83 mm. California (Colorado Desert).....**convexicolle** Lec.

Form somewhat as in *convexicolle* but a little more elongate, stout, suboval, convex, polished, black with a piceous tinge, the legs and antennae piceo-rufous; head well developed, not very coarsely and only moderately closely punctate, the punctures finer but also separated anteriorly, coarse and confluent toward the eyes, the sides converging and broadly arcuate; prothorax three-fourths wider than long, widest well behind the middle, the sides arcuate, gradually and rather strongly converging and less arcuate anteriorly, the basal angles right and minutely prominent, the punctures moderately coarse, deep and close-set, becoming gradually much coarser and very dense laterally; elytra nearly one-half longer than wide, very obtusely ogival at apex, very evidently wider than the prothorax and three times as long, the sides feebly arcuate, the punctures small but deep, confused and moderately sparse suturally, moderately coarse, strongly muricate and close-set in equal close-set series laterally, a little coarser near the humeri; abdomen minutely, sparsely punctate medially. Length 6.8 mm.; width 3.0 mm. California (southern).....**integer** n. sp.

Form stout, moderately convex, shining, dark castaneous, the under surface and legs dark rufous; head rather coarsely, deeply and moderately closely punctate, the sides before the eyes strongly converging and evenly, moderately arcuate; prothorax transverse, almost twice as wide as long, very slightly narrower than the elytra, slightly narrowed toward the broadly sinuate apex, the sides rather strongly, subevenly arcuate, the punctures very coarse and deep, close-set, becoming gradually but little coarser but longitudinally confluent toward the sides, the surface obliquely subrugulose anteriorly and posteriorly almost throughout the width; scutellum small, but little wider than long, angulate and punctured; elytra one-half longer than wide, ogival at tip, with the sides broadly arcuate, the series rather uneven but distinctly traceable throughout, except near the suture, the punctures moderately coarse and close-set, not confused toward the humeri; abdomen minutely, sparsely punctate medially. Length 5.7-6.6 mm.; width 2.4-2.85 mm. Southern California..... **probatum** n. sp.

39— Form stout, oblong-oval, rather strongly convex, alutaceous, piceous-black, the head, prothorax, sterna and legs dark rufous, the abdomen black except at apex; head coarsely, closely and unevenly punctate, with a large impunctate occipital area, the sides before the eyes very strongly converging and broadly arcuate to

the apex, which is narrower than usual and feebly sinuate; prothorax four-fifths wider than long, the sides parallel and feebly arcuate to beyond the middle, then rounded, becoming rectilinearly converging to the apex, which is much narrower than the base and deeply sinuate; punctures fine and moderately close-set, becoming rather rapidly coarse, close and subconfluent toward the sides; scutellum well developed, transverse, broadly angulate; elytra inflated posteriorly, barely two-fifths longer than wide, very obtuse at apex, much wider than the prothorax, with arcuate sides, the punctures non-setigerous, fine, feeble, rather sparse and confused toward the suture, larger, but still not very coarse and disposed in the usual series toward the sides; abdomen finely, sparsely punctulate medially. Length 6.2 mm.; width 2.9 mm. Arizonabicolor Horn

In nearly all the species above described the elytral punctures bear each a short, stiff, erect seta, becoming more conspicuous toward the sides and more evident in some forms than in others. There is visible also in most of the species, on the elytral flanks near the side margin and about two-fifths the length from the base, a short longitudinal impression and the surface at the humeral angles is more or less prominent, sometimes forming a distinct callus, which is generally paler in color than the remainder of the elytra. The male can frequently be recognized by the acute and slightly upturned sheath, finely cleft and inclosing the very slender intromittent spicule, and the female by the truncate end of the spatuliform and basally narrowed oviduct, protected by longitudinal lateral pieces, but there is very little sexual difference in the form of the body and no obvious secondary sexual characters. It should be noted that the elongate forms, having well developed wings, are virtually confined to Arizona, being very rare elsewhere, while those with short metasternum and abbreviated wings are by far the most abundant type in southern California.

It will be observed that the characters given for some of the above species are more or less at variance with those stated in my revision, before cited. For example, on page 331, the form of *dubium* is said to be slender, while in reality the true *dubium* has an unusually broad form of body. These inconsistencies, in great part, arise from the fact that in my previous treatment of the group I endeavored to fall in line with the then prevailing tendency to lump various forms together, without due investiga-

tion, and the types of *dubium*, and the very much narrower *carbonatum*, were combined to form a composite *dubium*, of which the assumed male was slender. Further study shows that all the species hitherto described, except perhaps *sculptile*, are abundantly valid, and I have so regarded them in the above table. The species, as in *Zopherodes*, *Asida* and many other Tenebrionid genera, although very numerous, are more or less local and usually rare individually, so that a considerable proportion of those in my cabinet are represented at present by single specimens. If one should proceed upon the assumption that the very obvious differential characters presented by these types are not permanent, no satisfactory classification for the species could be devised, for no limit could be set to fortuitous variation in the various composite groups of individuals, arbitrarily brought together under a few distinctive names, which is the condition prevailing in nearly all collections at the present time. These remarks apply also to all the other genera of this, as well as to the succeeding tribes here considered.

Telabis Csy.

It seems more consistent to regard this group of species as a genus, and not as a subgenus as originally proposed. The species differ considerably from those of *Metoponium* in general facies, and can usually be recognized at a glance, without referring to the biemarginate frontal margin or the structure of the hind tarsi, where the first joint is very much longer than the last. The genus is divisible into two groups, one composed of larger species, which are less numerous and more or less widely isolated among themselves, and the other comprising a host of small species, which are mutually more closely allied in some parts of the series and more difficult to define satisfactorily. In my previous paper the very distinct *punctulata*, of LeConte, is said to have a peculiar male sexual character relating to the fourth segment. Dr. Horn states that this character pertains to the female. The single specimen before me possessing this singular modification of the fourth abdominal segment, sheds but unsatisfactory light on this point, as the œdeagus is only slightly protruded, but such characteristics as are visible appear

to support the statement of Horn. The species in my cabinet may be briefly outlined as follows: —

Larger species, not materially under 6.5 mm. in length, the metasternum always very much longer than the first ventral segment..2

Small species, always under 6.0 mm. in length, the metasternum shorter, though at least slightly longer than the first ventral.....9

2 — Metasternum nearly twice as long as the first ventral; elytra very long, generally between four and five times as long as the prothorax, with broadly and feebly impressed longitudinal lines almost throughout the width.....3

Metasternum much less than twice as long as the first ventral, the elytra never more than four times as long as the prothorax and usually much less, and without such broadly impressed longitudinal lines..... 4

3 — Form oblong-clongate, parallel, rather shining, piceous-black, the head, pro- and mesosterna and legs piceo-rufous, broadly and moderately convex; head very short and broad, densely, moderately coarsely and shallowly muricato-punctate, the sides before the eyes feebly converging and very strongly arcuate, becoming parallel at the eyes; prothorax small, rather more than twice as wide as long, the sides narrowly but strongly reflexed, evenly and strongly arcuate, the apex deeply sinuate but only slightly narrowed, the punctures moderate, shallow, muricate and close-set, becoming densely crowded but only slightly larger toward the sides; elytra three-fourths longer than wide, almost five times as long as the prothorax and nearly a third wider, parallel, obtusely parabolic at tip, the humeri broadly exposed at base, the punctures moderate, shallow and irregularly seriate laterally, minute and confused broadly toward the suture, the intervals laterally generally with minute confused punctures; abdomen minutely but rather closely punctate. Length 9.2 mm.; width 3.78 mm. New Mexico (Albuquerque)..... **longipennis** Csy.

Form similar, the size smaller, rather shining, pale rufo-castaneous, the legs brighter rufous; head nearly as in *longipennis*, the eyes similarly large and rather prominent; prothorax less transverse, much more narrowed toward the deeply sinuate apex and with the sides evenly and still more strongly arcuate, fully twice as wide as long, the punctures more minute and rather sparser toward the middle, coarser and close but not so crowded toward the sides; elytra three-fourths longer than wide, more than four times as long as the prothorax but only a fifth or sixth wider, parallel, obtusely subogival at apex, the humeri well exposed in the reëntrant angle, finely, not densely, irregularly punctate throughout, the summits of the feeble ridges between the impressed lines subimpunctate, the punctured series more or less irregular even laterally, sometimes almost indistinguishable; abdomen minutely, sparsely punctulate. Length 6.5–7.7 mm.; width 2.65–3.15 mm. Texas (near El Paso)..... **discors** Csy.

- 4 — Surface of the pronotum obliquely and feebly prominent toward the basal angles.....5
 Surface of the pronotum evenly convex near the posterior angles.....8
- 5 — Pronotum not very obviously impressed near the sides at base; body stouter in form6
 Pronotum with a large rounded impression, at base laterally, between the oblique prominence and the basal margin7
- 6 — Body stout, oblong, feebly alutaceous, castaneous, the under surface and legs paler, rufous; head rather finely, muricately, somewhat unevenly but not densely punctate, broad, the sides but feebly converging before the eyes and strongly arcuate, becoming parallel at the eyes, which are large; prothorax three-fourths wider than long, widest distinctly behind the middle, where the sides are rather strongly rounded, thence converging and evenly, very feebly arcuate to the apical angles, which are not in the least everted; punctures fine and sparse, with a narrow impunctate median line, stronger, muricate and closer but still well separated laterally; elytra two-thirds longer than wide, not quite four times as long as the prothorax and a fourth wider, obtusely rounded in apical third, the sides very feebly arcuate, the punctures small, muricate, slightly larger laterally, close-set in rather even, broadly and feebly impressed series, the intervals minutely, sparsely, irregularly punctate. Length 7.0 mm.; width 3.1 mm. Texas (near El Paso)**muricatula** Csy.

Body nearly similar in coloration and lustre, the under surface more blackish; head rather smaller, with somewhat sparser and still more irregular punctures but otherwise similar, except that the transverse epistomal surface is more tumid; prothorax very much shorter and more transverse, widest near the middle, narrowed at apex, twice as wide as long, the sides subevenly and strongly arcuate throughout, except for a very short distance at the apical angles, which are prominently everted, the punctures still more minute and sparser, with a much less elongate impunctate line, coarser, closer and muricate but distinctly separated toward the sides; elytra shorter, three-fifths longer than wide, less than four times as long as the prothorax and not over a fifth wider, obtusely parabolic in apical third, the punctures finer, arranged in similar series, which are however less impressed, the interstitial punctures extremely minute, sparse and irregular. Length 6.5 mm.; width 2.8 mm. Texas (near El Paso).....**prominens** n. sp.

Body stout and strongly convex, oblong, strongly shining, pale rufotestaceous throughout; head rather finely but deeply, sparsely and non-muricately punctate, very densely so anteriorly, the sides moderately converging and strongly arcuate, the apex feebly sinuato-truncate; prothorax scarcely more than two-thirds wider than long, widest slightly behind the middle, the sides rather strongly arcuate, becoming straight toward the apical angles, which are right and not rounded, the apex rather feebly sinuate and four-

fifths as wide as the base, the angles obtuse but not rounded, the punctures very fine and sparse, becoming gradually rather coarse, muricate, close but still separated toward the sides; scutellum moderate, transverse; elytra nearly one-half longer than wide, three times as long as the prothorax and nearly a fifth wider, the sides feebly arcuate, the humeri but slightly exposed at base, the apex obtusely rounded, the punctures fine, becoming rather coarse laterally, close-set in wholly unimpressed series, the intervals minutely, sparsely and more or less confusedly punctate; surface on the posterior declivity having two or three feebly elevated lines, which bear small and widely separated asperities; abdomen very finely, sparsely punctate medially. Length 6.5 mm.; width 2.85 mm. Texas (El Paso), — H. F. Wickham.....**rubida** n. sp.

- 7 — Form oblong-elongate, moderately convex, blackish-castaneous, the under surface and legs in great part rufous; surface feebly alutaceous; head closely, shallowly and muricately punctate, minutely and sparsely so on the occiput, the sides before the eyes strongly convergent, evenly and moderately arcuate, the epistoma tumid and densely sculptured; prothorax nearly four-fifths wider than long, widest near the middle, the sides rather strongly, sub-evenly rounded, more converging anteriorly, becoming broadly and just visibly sinuate behind the apical angles, which are acute, the apex deeply sinuate, the lateral edges very narrowly reflexed and minutely, obsoletely serrulate, the punctures minute and sparse, becoming larger and muricate but still well separated toward the sides; elytra as in *prominens*, three-fifths longer than wide and a fourth wider than the prothorax, closely and rather strongly punctured in nearly even, unimpressed series, the intervals unevenly uniseriate, the punctures rather close-set but in great part confused toward base; abdomen polished as usual, minutely, sparsely punctulate. Length 6.7 mm.; width 2.7 mm. Arizona (near Benson).....**vafra** n. sp.

Form similar to the preceding, rather more shining, castaneous, the under surface and legs bright rufous; head nearly as in *vafra* but decidedly smaller and more obviously impressed at the middle of the vertex; prothorax rather more transverse though similar in form and rotundity of the sides, the latter more converging and straight anteriorly, with the angles right and not all prominent, the punctures fine and sparse, becoming decidedly larger, only slightly muricate and well separated toward the sides; elytra as in *vafra* but much more finely and feebly punctate in subeven series, with the interstitial punctures minute, feeble, sparse and irregular, not over a fifth wider than the prothorax; abdomen similarly very minutely, feebly and sparsely punctulate and strongly convex. Length 6.5 mm.; width 2.65 mm. Texas (near El Paso).....**proxima** n. sp.

- 8 — Form oblong-suboval, moderately convex, strongly alutaceous and but feebly shining, pale ferruginous throughout; head rather

finely, densely but not deeply, muricately punctate, the sides before the eyes strongly converging, evenly and moderately arcuate, the eyes large; prothorax barely twice as wide as long, widest at the middle, where the sides are strongly rounded, thence moderately converging and nearly straight to the obtuse basal angles and more convergent, becoming broadly and just visibly sinuate, to the apical angles, which are right and not prominent, the apex deeply sinuate; punctures rather fine, shallow, close-set, with a narrow impunctate median line from which they become gradually slightly larger, muricate and dense toward the sides; elytra as in the preceding species, fully a fifth wider than the prothorax, with broadly arcuate sides, the punctures fine, strongly muricate, close-set and uneven, with irregular and close-set unimpressed series, in which the punctures are only slightly larger; abdomen finely, sparsely punctured, convex, the fourth segment in the apparent female with a porrect median lobe. Length 6.6 mm.; width 2.8 mm. Lower California (Cape San Lucas).

punctulata Lec.

Form oblong-oval, convex, black throughout, the legs rufous; head and pronotum densely opaque, the elytra feebly shining, alutaceous; head not very coarsely but closely, moderately strongly punctate, the epistoma moderately convex, densely sculptured, the sides before the eyes feebly converging and broadly arcuate, becoming parallel at the eyes, which are only moderately developed; prothorax well developed, fully four-fifths wider than long, widest at about the middle, moderately narrowed toward the normally sinuate tip, the sides strongly and almost evenly arcuate, the punctures fine, shallow, moderately close, becoming gradually dense, muricate and moderately coarse toward the sides; elytra one-half longer than wide, scarcely more than three times as long as the prothorax and but very little wider, obtusely rounded at tip, the sides feebly arcuate, finely but rather strongly, muricately and confusedly punctate, with slightly uneven, feebly impressed series of but slightly larger, close-set punctures, the second series from the sides more strongly impressed behind the humeri. Length 7.4 mm.; width 3.15 mm. California (San Diego).

opacella n. sp.

Form oblong, subparallel, moderately convex, rather strongly shining throughout, castaneous, the under surface and legs rufous; head finely but deeply, muricately and rather closely punctate, the sides before the eyes moderately converging and strongly arcuate, the eyes rather prominent; prothorax widest at about the middle, fully three-fourths wider than long, moderately narrowed and sinuate at apex, the sides evenly and strongly arcuate, the punctures fine and rather sparse with the surface shining, rather rapidly larger, somewhat coarse, muricate and crowded laterally; elytra three-fifths longer than wide, not four times as long as the prothorax and about a fifth wider, obtusely or sub-circularly rounded at tip, parallel, with the sides almost straight

thence to the humeral arcuation, the punctures fine, sparse and irregular, with well marked, feebly impressed series of larger close-set punctures, becoming rather coarse but irregularly crowded toward the sides. Length 7.3-7.7 mm.; width 3.2 mm. Arizona.

histrica Csy.

Form oblong, nearly as in *histrica* but less elongate, similarly rather shining, black, the legs dark rufous; head dull and nearly similar but less transverse and more finely, rather sparsely punctate, the sides equally converging but more strongly arcuate, the angles more broadly rounded and much less evident, the epistoma feebly sinuato-truncate; prothorax more transverse, nearly four-fifths wider than long, almost similar in form and punctuation, the minute medial punctures rather less sparse; scutellum somewhat less developed but similarly narrowed toward base and punctulate in basal half; elytra one-half longer than wide, but little more than three times as long as the prothorax and about a sixth wider, the sides parallel and nearly straight, the humeri rounded and the apex abruptly and very broadly rounded in posterior fourth, the sculpture nearly as in *histrica* but with the striae feebly impressed and the slightly elevated double series of small, widely spaced subsutural asperities on the posterior declivity rather more pronounced; abdomen very finely rugulose, minutely and sparsely punctate medially. Length 6.5 mm.; width 2.9 mm. Arizona (Tuçson), — H. F. Wickham.....*obtusa* n. sp.

9 — Pronotal punctures usually fine, aciculate or muricate and very dense, the surface generally dull in lustre; body oblong as a rule and moderately convex.....10

Pronotal punctures larger and more or less widely separated, with the surface polished; body generally more oval and convex.....20

10 — Elytra alutaceous in lustre.....11

Elytra highly polished and rather more convex19

11 — Elytral punctures fine, sparse, feeble and slightly muricate, the punctured series indistinct and only traceable near the base. Body oblong, piceous-black, the under surface more rufous and the legs still paler, alutaceous throughout above; head strongly, densely and roughly punctured, the sides strongly converging and nearly straight, rapidly rounding at the apical angles, the epistoma broad, scarcely produced; prothorax four-fifths (♀) to nearly twice (♂) as wide as long, widest at the middle, the sides subevenly and moderately arcuate, the apex sinuate and slightly narrowed, the punctures very fine, moderately close-set, becoming larger, rough and very dense toward the sides; elytra two-fifths to one-half longer than wide, just visibly (♂) to a fifth or fourth (♀) wider than the prothorax, parallel and nearly straight at the sides, narrowing slightly at the base, the apex obtusely rounded; abdomen shining, minutely, sparsely punctate medially, less finely toward the sides. Length 5.0-5.3 mm.; width 2.2-2.38 mm. Utah (St. George), — H. F. Wickham.....*uteana* n. sp.

Elytral punctures nearly as in *uteana*, the head and scutellum much larger and the sides of the prothorax more rounded, pale testaceous in color, moderately shining, strongly convex; head two-thirds as wide as the prothorax, finely, moderately closely punctate, the sides strongly converging and feebly arcuate, the angles distinct but blunt, the emarginations distinct, the epistoma but feebly produced, broadly truncate; prothorax a little more than twice as wide as long, somewhat narrower at apex than at base, the sides evenly and strongly arcuate, the basal angles obtuse, not prominent, the punctures very fine and well separated medially, close-set, muricate and larger but not coarse laterally; scutellum large, rather more than a fourth as wide as an elytral base; elytra three-fifths longer than wide, gradually, arcuately rounded and obtuse posteriorly, three and one-half times as long as the prothorax and, at the middle, distinctly wider, the sides evenly, rather strongly arcuate, the humeri not exposed at base, the punctures muricate, fine, moderately close, larger laterally, in great part confused but with uneven and unimpressed series visible on careful examination; abdomen finely, sparsely punctate. Length 4.8 mm.; width 2.12 mm. Utah (Milford), — H. F. Wickham.

amica n. sp.

Elytra rather finely but more closely and distinctly punctate, the punctured series usually obvious almost throughout the length.....12

12 — Epistomal lobe distinctly produced, narrowed and sinuato-truncate at apex, the sides strongly oblique, the oblique frontal sutures very deep and distinct. Form elongate-suboval, rather shining and but feebly alutaceous, pale castaneo-ferruginous, the legs rufous; head closely and shallowly muricato-punctate; eyes rather large and prominent, the sides before them strongly converging and nearly straight; prothorax four-fifths wider than long, widest at the middle, but little narrowed and rather feebly sinuate at apex, the sides parallel, evenly and moderately arcuate, the punctures fine and well separated medially, becoming rather coarse, very dense and scabrous laterally; elytra one-half longer than wide, three times as long as the prothorax and but very little wider, the sides feebly arcuate, the apex obtusely, evenly rounded, the punctures distinct and not very close-set, only slightly muricate, the series not impressed, the intervals with very uneven single series of subsimilar punctures; abdomen rather strongly and closely punctate. Length 4.8 mm.; width 2.1–2.22 mm. Arizona (Tuçson), — H. F. Wickham.

lobifrons n. sp.

Epistoma not sensibly produced, broadly truncate, the oblique frontal sutures shallow and less distinct.....13

13 — Elytral series finely and feebly but obviously impressed, strongly, closely punctate, even and very distinct to the apex, the intervals strongly though less coarsely punctate in more or less uneven single series. Body elongate-oval, only moderately convex, but

slightly alutaceous, dark castaneous, the head, prothorax, under surface and legs more or less pale rufous; head strongly, evenly and rather closely punctate, the sides converging and but feebly arcuate; prothorax nearly four-fifths wider than long, distinctly narrower at apex and deeply sinuate, the sides evenly and strongly arcuate, the punctures fine but deep and moderately close-set medially, becoming moderately coarse, dense and scabrous laterally; elytra two-fifths longer than wide, a fourth or fifth (♀) wider than the prothorax, obtusely rounded at tip, the sides decidedly arcuate; abdomen finely and sparsely punctate medially, the last segment more closely as usual, the sides somewhat coarsely though just as sparsely. Length 5.6 mm.; width 2.5 mm. Texas (El Paso).....*mimetica* n. sp.

Elytral series not or scarcely impressed, less even or relatively less strongly punctured as a rule..... 14

14 — Species of southern California and western Arizona.....15

Species of eastern Arizona to western Texas.....16

15 — Form oblong, brown in color, the legs rufous; surface rather dull in lustre; head paler at the sides and apex, strongly and densely, subscabrously punctate, the sides strongly converging and feebly arcuate, the eyes moderate, rather prominent; prothorax not quite twice as wide as long, slightly narrowed and broadly sinuate at apex, widest at the middle, the sides evenly and strongly arcuate, the punctures small but muricate and close-set medially, becoming coarser, dense and scabrous laterally, the interstices opaque; elytra one-half longer than wide, a fifth wider than the prothorax, obtusely rounded at apex, the sides broadly, feebly arcuate, the punctures rather large but shallow and muricate, somewhat close-set and uneven, sometimes forming single series on the intervals toward base, the principal series rather uneven, composed of punctures but little larger than the interstitial but very close-set, the surface with broad, very obsolete longitudinal impressed lines. Length 5.7 mm.; width 2.42 mm. California (Inyo Co.).....*sodalis* Horn

Form oblong, piceous-black, the legs paler, piceo-rufous, the surface strongly alutaceous; head densely, moderately coarsely punctato-scabrous, the sides strongly converging and nearly straight, the eyes moderate; prothorax not quite twice as wide as long, evidently narrowed and deeply sinuate at apex, widest at the middle, with the sides evenly and strongly arcuate, the punctures very small, subelongated and close-set medially, becoming not very coarse, but dense, scabrous and somewhat obliquely substrigose laterally; elytra fully one-half longer than wide, rather more than three times as long as the prothorax and nearly a fourth wider, very obtusely parabolic at tip, the sides parallel, nearly straight, feebly rounding basally, the humeri feebly exposed at base; punctures rather small, shallow, submuricate, rather close-set and uneven, with irregular series of similar though somewhat

larger and more close-set punctures, which are very obsoletely and broadly impressed toward the suture; abdomen finely, sparsely punctate medially. Length 5.6 mm.; width 2.32 mm. California (San Diego).....*fidelis* n. sp.

Form nearly similar, piceous-black, the legs pale rufous, the surface rather strongly alutaceous; head not very coarsely, densely punctato-scabrous throughout, the sides strongly converging and nearly straight; prothorax small, nearly as in *fidelis*, but rather less transverse, about four-fifths wider than long, the sides evenly and rather more strongly arcuate, the punctuation throughout nearly similar but slightly stronger; elytra similar but rather more than a fourth wider than the prothorax, with the humeri more widely exposed at base, the punctures more confused, somewhat fine, shallow, slightly muricate and not very close-set, the series very irregular and observable with difficulty except toward base; abdomen minutely, sparsely punctate. Length 5.5 mm.; width 2.35 mm. Arizona (Peach Springs).....*debilis* Csy.

16 — Abdomen finely, sparsely punctured medially, not rugulose....17
Abdomen rather coarsely, not so sparsely punctured even medially, its surface shining, but with small inequalities or rugulation...18

17 — Body oblong-subparallel, moderately stout, strongly alutaceous, piceo-castaneous, the under surface and legs paler and rufous; head rather coarsely, densely, muricately punctate, the sides converging and nearly straight; prothorax slightly though evidently less than twice as wide as long, distinctly narrowed and evenly sinuate at tip, the sides evenly and strongly arcuate, finely and closely punctate, the punctures becoming only moderately coarse but dense and scabrous laterally; elytra but little more than one-half longer than wide, scarcely three times as long as the prothorax and but little wider, very obtusely rounded at apex, the sides feebly arcuate, the series unimpressed, rather strongly, very approximately punctate, the intervals less strongly punctured in very uneven single series laterally; abdomen convex, finely, sparsely punctate. Length 4.6-4.8 mm.; width 2.1-2.2 mm. Texas (El Paso), — G. W. Dunn.....*crassula* Csy.

Body nearly as stout as in *crassula*, the head nearly similar, the prothorax shorter, twice as wide as long, evenly but less strongly rounded at the sides, the punctures similarly fine and close-set medially but rather stronger; elytra not quite one-half longer than wide, fully three times as long as the prothorax and slightly broader, the serial punctures similarly strong and close-set, those of the intervals more irregular and deeper; abdomen less sparsely punctured than in *crassula*; color black, with the legs rufo-piceous. Length 5.0 mm.; width 2.28 mm. Arizona (locality unknown, but probably southeastern).....*timida* n. sp.

18 — Form oblong-oval, convex, alutaceous, pale piceo-castaneous, the under surface and legs piceo-rufous; head opaque, not very

densely, somewhat coarsely, muricately punctate, the sides converging and straight before the eyes; prothorax only moderately transverse, but little more than three-fourths wider than long, distinctly narrowed but rather feebly sinuate at tip, the sides evenly and rather strongly arcuate, the disk widest somewhat behind the middle, opaque, minutely and closely but somewhat irregularly punctate, somewhat coarsely, densely and muricately toward the side; elytra fully one-half longer than wide, barely three times as long as the prothorax and only slightly wider, more shining, obtusely rounded at apex, parallel, with the sides feebly and evenly arcuate, the serial punctures rather strong and close-set, those of the intervals uneven in arrangement and smaller. Length 5.3 mm.; width 2.28 mm. Arizona.....*compar* n. sp.

Form oblong, dilated behind, short and stout, piceous-black, the legs and sterna rufous; head opaque, closely punctato-scabrous, the sides converging and nearly straight but with the angles broadly rounded at apex; prothorax very short, fully twice as wide as long, sinuate but only slightly narrowed at apex, the sides rounded but becoming straight or subsinuate apically, widest at the middle, the surface only alutaceous, more shining than in *compar*, the punctures comparatively coarse and separated by fully twice their own diameters, becoming but little coarser though dense and scabrous laterally; elytra short, two-fifths longer than wide but rather more than three times as long as the prothorax, obtusely ogival at apex, at apical third much wider than toward base, where they are but little wider than the prothorax, the serial punctures coarse and close-set, becoming gradually much smaller posteriorly, the interstitial punctures only a little smaller but sparser and uneven; abdominal sculpture strikingly coarse. Length 4.5 mm.; width 2.1 mm. Arizona (Tuçson).

curticollis n. sp.

Form narrow, convex, parallel, much smaller in size, piceous-black, the under surface rufo-piceous, the legs rufous; head trapezoidal, finely, closely and muricately punctate, the epistoma projecting only very slightly beyond the lateral lobes and very broadly, rectilinearly truncate, the converging sides before the eyes almost straight; prothorax alutaceous, twice as wide as long, nearly parallel, the moderately sinuate apex but little narrower than the base, the sides evenly, rather strongly arcuate, the basal angles very obtuse; punctures fine and well separated medially, becoming larger, dense and confusedly rugulose laterally; scutellum well developed, punctured basally; elytra one-half longer than wide, somewhat more than three times as long as the prothorax and sensibly wider in the male, rapidly and obtusely parabolic at tip, the sides parallel and feebly arcuate, the humeri only just visibly exposed at base; surface rather smooth and alutaceous, the series of close-set punctures distinct and not very coarse or strongly muricate, almost entire, unimpressed, the punctures of the intervals but little smaller, though feebler and more widely

spaced, generally in less even single series, confused near the suture; abdomen coarsely, rather closely punctured along the middle, but more sparsely so thence to the sides. Length 4.1 mm.; width 1.85 mm. Texas (El Paso), — H. F. Wickham.

vapida n. sp.

- 19—Oblong-oval, stout, pale brownish-testaceous, the legs more flavo-rufous; head rather coarsely, densely punctato-scabrous, the sides strongly converging and nearly straight, the lateral lobes narrowly rounded at tip, the epistoma very broadly and moderately though distinctly produced and truncate, with its sides very oblique, the oblique sutures fine but distinct; prothorax transverse, not quite twice as wide as long, but little narrowed but deeply sinuate at apex, widest at the middle, the sides evenly and strongly arcuate, the surface slightly alutaceous, minutely, rather closely and muricately punctate, becoming rather coarsely, very densely punctato-scabrous laterally; elytra not quite one-half longer than wide, three times as long as the prothorax and a fifth wider, obtusely rounded at apex, the sides broadly and distinctly arcuate, the series of close-set and rather small but deep punctures unimpressed and slightly irregular, the intervals with confused and sparser but scarcely smaller punctures; abdomen minutely, sparsely punctate. Length 5.3 mm.; width 2.7 mm. California (probably near Yuma). [= *sodalis* Csy. nec Horn, olim].

incisa n. sp.

- Oblong-oval, the elytra rather dilated posteriorly, piceous-black, the legs rufous; head coarsely, densely punctato-scabrous and dull, the frontal margin evidently biemarginate, the epistoma produced slightly and rectilinearly truncate, the sides before the eyes evenly converging and moderately arcuate; prothorax small, very nearly twice as wide as long, strongly narrowed and moderately sinuate at apex, widest and subinflated near basal third, the sides sub-evenly, rather strongly arcuate, especially toward base; punctures coarse, scabrous, slightly smaller and separated medially, very dense and rough laterally, the surface with a deeply impressed line along the basal margin throughout the width; scutellum well developed, somewhat punctate; elytra one-half longer than wide, between three and four times as long as the prothorax, and, posteriorly, distinctly wider, the sides broadly arcuate, the apex rapidly and obtusely ogival; punctures very coarse, strongly asperate, deep and close-set in rather confused and uneven unimpressed series, the single series of the intervals similarly coarsely and asperately but less closely punctate, causing the coarse sculpture to be very conspicuous, although the interspaces are polished, all series continuing unmodified to the apex; abdomen more finely, not very sparsely and subasperately punctate medially. Length 4.6–5.2 mm.; width 2.1–2.38 mm. Colorado (Salida), — H. F. Wickham *aspera* n. sp.

- 20—Apical angles of the head narrowly rounded, the sides converging and straighter before the eyes; color generally dark.....21

- Apical angles broadly rounded, the sides converging; epistoma somewhat projecting and truncate; color pale testaceous.....24
- 21 — Sides before the eyes feebly arcuate.....22
- Sides before the eyes straight; body rufo-castaneous, the under surface paler and the legs rufous.....23
- 22 — Form narrow, oblong, subparallel, piceous-black, the legs rufous; head rather coarsely and muricately, evenly but not very densely punctate; prothorax not quite twice as wide as long, widest at the middle, feebly narrowed and distinctly sinuate at apex, the sides subevenly, rather strongly arcuate, becoming straight or feebly sinuate anteriorly, with the angles somewhat acutely prominent; surface somewhat shining, not very finely or closely, muricately punctate, the punctures rather coarse and almost in longitudinal contact at a short distance from the sides, then well separated and equally coarse to the side margins; scutellum punctate in anterior half; elytra fully one-half longer than wide, barely three times as long as the prothorax and slightly wider, very obtusely rounded at apex, parallel, the sides nearly straight, the humeral callus pronounced; surface shining, with even, unimpressed series of rather coarse, not very close-set or distinctly muricate punctures, the intervals with almost even series of similar but slightly less coarse punctures; abdomen not very finely, feebly, sparsely punctate. Length 4.4 mm.; width 1.88 mm. New Mexico (Las Cruces).**famelica** n. sp.

Form much stouter, convex, polished throughout, dark castaneous, the abdomen rufo-piceous, the legs bright rufous; head with rather small, non-muricate and notably sparser punctures, shining; prothorax very nearly twice as wide as long, distinctly narrowed but rather feebly sinuate at apex, the sides strongly but unevenly rounded, strongly converging and straight toward both the anterior and posterior angles, the former not prominent and obviously obtuse; surface polished, with rather small but deep, perforate, non-muricate and well separated punctures medially, becoming rather coarse and close laterally but still slightly separated and only feebly muricate near the margins; elytra oval, less than one-half longer than wide, more than three times as long as the prothorax and, behind the middle, slightly wider, the sides broadly arcuate, the apex very obtusely ogival; punctures coarse, not very close-set, evenly serial, becoming very coarse laterally, especially toward base, the interstitial punctures only slightly less coarse and subevenly serial but more remotely spaced; abdomen finely, sparsely punctate. Length 5.0 mm.; width 2.22 mm. New Mexico (Deming), — H. F. Wickham.**lustrella** n. sp.

- 23 — Body oblong-oval, not very stout, convex; head with moderately coarse, close and subscabrous punctures, the median parts of the occiput more sparsely punctate; prothorax shining, four-fifths wider than long, moderately narrowed and sinuate at apex,

widest rather behind the middle, the sides subevenly, rather strongly arcuate but becoming somewhat abruptly converging and straight near the basal angles, the punctures rather small, sparse and submuricate medially, where there is a very fine, faint median raised line not extending to base or apex, rather coarse, subcontiguous and scabrous laterally, the lateral margin very fine; elytra oval, fully one-half longer than wide, rather more than three times as long as the prothorax and slightly wider, gradually and not very obtusely rounded behind, parallel, the sides broadly arcuate, widest near the middle, the humeri not at all exposed at base, the punctures rather coarse, especially toward base, somewhat close-set in subeven and unimpressed series, the interstitial series regular but with rather less coarse and widely spaced punctures; abdomen polished, feebly rugulose and rather sparsely punctulate. Length 4.8 mm.; width 2.15 mm. New Mexico (Albuquerque), — H. F. Wickham.....**pavida** n. sp.

Body oval, convex, stouter, the head with moderate, scarcely scabrous and rather distinctly separated punctures; prothorax much shorter and more transverse, twice as wide as long, distinctly narrowed and sinuate at apex, the sides subevenly and rather strongly arcuate, becoming straight or subsinuate for a much shorter distance immediately before the basal angles; surface with similar trace of a fine partial elevated median line, the punctures very fine, rather sparse and feeble medially, gradually coarse laterally, becoming almost contiguous and scabrous near the sides, which are much more broadly reflexed than in either the preceding or following species; elytra two-fifths longer than wide, fully three and one-half times as long as the prothorax and distinctly wider, the apex gradually and obtusely ogival, the sides arcuate, the humeri slightly exposed at base, the series unimpressed, somewhat uneven, composed of close-set punctures which are very feeble and not very large, flexed outwardly toward base, with gradually much coarser and deeper punctures, the interstitial punctures forming very irregular single series, smaller in size and more widely separated; abdomen very convex, finely, sparsely punctate. Length 5.3 mm.; width 2.4 mm. Arizona (Winslow), — H. F. Wickham**ovalis** n. sp.

Body elongate-oval, convex, much narrower than in the two preceding; head rather closely and coarsely, muricately punctate; prothorax four-fifths wider than long, but slightly narrowed though strongly sinuate at apex, the sides subparallel, almost evenly and very moderately arcuate, much less rounded than in the two preceding species, the lateral edges only very finely reflexed but distinctly and unevenly serrulate; punctures rather small but distinct, submuricate and well separated, becoming gradually larger and more rugose laterally and very coarse and closely scabrous near the sides; elytra very elongate, three-fifths longer than wide, three and three-fourths times longer than the prothorax and slightly wider, gradually obtuse and subparabolic at tip, widest at about

the middle, with the sides broadly arcuate, the humeri scarcely at all exposed at base; punctuation nearly as in *ovalis*, the serial punctures becoming very coarse and close-set toward base but gradually much smaller and very feeble posteriorly; abdomen finely, sparsely punctate. Length 4.7 mm.; width 2.0 mm. Arizona (Holbrook), — H. F. Wickham..... **inops** n. sp.

Body oblong-oval, stout, polished, pale rufo-castaneous; head moderate, polished, rather coarsely, sparsely punctate, the sinuations feeble, the epistoma very feebly produced, broadly truncate; prothorax scarcely twice as wide as long, the apex evidently narrower than the base, the sides rather strongly arcuate, more converging and straight, with the edge serrulate anteriorly, not sinuate before the basal angles, which are obtuse and not at all prominent, the punctures sparse, moderately fine, becoming rather coarse and only slightly muricate, close though not crowded laterally, the edge very finely and feebly reflexed; scutellum moderate, slightly transverse; elytra a little more than one-half longer than wide, gradually parabolic in apical two-fifths, nearly three and one-half times as long as the prothorax but only very slightly wider, the sides feebly arcuate, the humeri not exposed at base; punctures coarse, especially toward the sides, rather close-set in even and unimpressed series throughout, scarcely at all muricate, the interstitial punctures widely spaced in very uneven single series; abdomen finely, sparsely punctate medially; anterior tibiæ short and thick, with the outer spur very strong and scarcely oblique, the outer edge obtusely serrate, the serrules alternating with short thick spinules. Length 5.4 mm.; width 2.4 mm. Arizona (Riverside), — H. F. Wickham..... **aliena** n. sp.

24 — Form elongate-oval, convex, polished, pale testaceous throughout; head rather finely, submuricately and not densely punctate, the sides feebly arcuate as well as converging; prothorax twice as wide as long (♀) or slightly less (♂), strongly narrowed from base to apex, with the sides evenly arcuate (♂) or more abruptly converging and subsinuate near the base (♀), evidently serrulate, the apex deeply sinuate, the punctures sparse, moderately fine and scarcely muricate and with a partial impunctate median line medially, becoming larger and more scabrous but still well separated toward the sides; elytra rather less than one-half longer than wide, between three and four times as long as the prothorax and evidently wider, obtusely ogival at tip, the sides broadly arcuate, the humeri not exposed at base, the punctures shallow, only moderately coarse, arranged in even, unimpressed and close-set series, not notably coarser toward base, the interstitial punctures only slightly smaller though more widely spaced in nearly even series; abdomen minutely, remotely punctulate medially. Length 4.3-4.8 mm.; width 1.8-2.15 mm. Texas (El Paso), — G. W. Dunn..... **serrata** Lec.

Form stouter, scarcely so convex, oblong-oval, shining, darker testaceous throughout; head as in *serrata*, finely, sparsely punctate

except, as usual, anteriorly, where the punctures are dense and rugose; prothorax very short, rather more than twice as wide as long, strongly narrowed and sinuate at tip, the sides almost evenly, rather strongly arcuate and coarsely crenulate, the apical angles somewhat acute and subprominent, sculptured nearly as in *serrata*, the punctures medially finer and more evidently muricate, coarse and well separated laterally; surface with a deep impressed line along the basal margin throughout the width as in *aspera*; elytra oblong, more parallel and with straighter sides than in *serrata* and with the humeri evidently exposed at base, one-half longer than wide, nearly four times as long as the prothorax and almost a third wider, obtusely ogival posteriorly, the series unimpressed, composed of punctures which are rather coarse, deep and so close as to become irregularly crowded, the single nearly even series of the intervals being much less strongly and very remotely punctured; abdomen sparsely and extremely minutely punctulate medially, very convex. Length 5.0 mm.; width 2.28 mm. Texas (Del Rio), — H. F. Wickham..... *blanda* n. sp.

If the true *Eurymetopon*, of Eschscholtz, is really represented in the material serving as the basis of this revision, it is more likely to be the present genus than any other, for, although invariably having well developed eyes, a distinct supra-orbital carina and slender, non-incrassate antennal shaft, it has a good many of the characters assigned by Lacordaire to *Eurymetopon rufipes*, such as a prothorax decidedly narrower than the elytra as a rule, the latter being frequently feebly sulcate and strongly muricate, or what might be termed rugulose. I however hesitate to identify *Tclabis* as the true *Eurymetopon* for the present.

The species described above as *histrica* bears a rather deceptive resemblance to *Metoponium*, by reason of its unusually coarse sculpture and almost obsolete frontal emarginations, but these punctures have the same general character as in the more normal species of *Tclabis*, and the basal joint of the hind tarsi is quite as greatly elongated. *Mimetica* resembles *crassula* and allies closely in general form, but I cannot reconcile the very decided difference in elytral sculpture; the type is a female and is compared with the same sex of *crassula*; the forms allied to *crassula* are somewhat confusing. In the female the prothorax is frequently either smaller or more transverse than in the male and the elytral sculpture is sometimes a little stronger. In the rather prominent epistoma, *lobifrons*, *incisa* and several others, take very much the same position in *Tclabis* that *piceus* and some

others occupy in *Hylocrinus*; they are rather singular exceptions, betraying a tendency, even in the present tribe, toward the development of the prominent epistomal lobe, so extremely prevalent elsewhere among those Tentyriinæ having a large mentum. The sides of the elytra usually have some erect and widely spaced setæ, longer toward base, and particularly developed in *incisa* and a few other species. The species described by Champion in the "Biologia," under the name *Eurymetopon brevicolle*, belongs to this genus in the neighborhood of *longipennis*.

Cryptadius Lec.

In general habitus this genus, by reason of its broadly oval form and strongly, anteriorly narrowed prothorax with obtusely rounded basal angles, is quite different from the two which precede and it is undoubtedly valid. LeConte originally described the clypeus as produced and truncate, which might easily be misleading as it is not as evidently produced as in several species of *Telabis*, although somewhat distinctly defined by the two small feeble emarginations as in that genus; it also resembles *Telabis* in the generally muricate character of the sculpture and in the structure of the hind tarsi, where the basal joint does not however so greatly exceed the fourth in length. The species are not numerous and the four before me are confined, as far as known, to the maritime regions of southern California, though probably extending also into the adjacent parts of Lower California; they may be defined as follows:—

- Hind tibiæ feebly arcuate to almost straight; body black or piccous-black in color.....2
- Hind tibiæ strongly arcuate; body ferruginous throughout, less broadly oval and more acutely pointed behind.....5
- 2 — Pronotal punctures close and more or less longitudinally elongated or strigose medially.....3
- Pronotal punctures fine, sparse and simple toward the middle.....4
- 3 — Body broadly oval, the sides of the prothorax strongly converging, the scutellum projecting behind the raised basal margin of the elytra. Convex, alutaceous, black, the legs rufous; head broad, coarsely, closely punctato-scabrous, the eyes moderate, prominent, the sides before them strongly converging and slightly arcuate, the epistoma obviously advanced, with very oblique sides and truncate apex; prothorax less transverse than in any other species,

only slightly more than twice as wide as long, the apex scarcely more than two-thirds as wide as the base, deeply sinuate, the angles right and not at all rounded, the sides broadly arcuate, becoming straight toward apex, the punctures longitudinally coalescent throughout, small medially, very coarse laterally; elytra about a fifth longer than wide, barely three times as long as the prothorax but fully a fourth wider, the sides arcuate, the humeri rounded and apex acutely ogival, the flanks vertical, with an elongate impression at the side margin near basal third, the punctures fine, feeble, irregular, muricate, coarsely so laterally; abdomen finely, sparsely punctate. Length 7.0 mm.; width 3.8 mm. California (San Diego).....**inflatus** Lec.

Body less broadly and more oblong-oval, the prothorax less narrowed at apex and very much shorter and more transverse. Convex, black or picceous-black, the head and prothorax generally slightly, the under surface and legs more distinctly, rufescent, alutaceous; head coarsely, densely punctato-scabrous, the sides strongly converging and straight or virtually so, the epistoma only very feebly prominent; prothorax two and one-half times as wide as long, the sinuate apex three-fourths as wide as the base, otherwise in form and sculpture as in *inflatus*; elytra a fifth longer than wide, evidently more than three times as long as the prothorax and but little wider, rather acutely ogival at tip, the sides less arcuate than in *inflatus*, similarly sculptured, the impression at the side margin very much smaller, less elongate and feebler; abdomen similarly finely, sparsely punctured, the third segment of the female with a rounded impression at apex at each side, almost midway between the middle and the margin, the fifth very faintly biimpressed or slightly tumid along the median line. Length 4.7-6.5 mm.; width 2.62-3.42 mm. California (near San Diego and at Redondo Beach).....**oviformis** n. sp.

4—Oval but rather more oblong than in *oviformis*, convex, alutaceous but with the elytra more polished than usual, black, rufopiceous anteriorly and beneath, the legs brighter rufous; head as in *oviformis* but with coarse and still sparser sculpture; prothorax as in *oviformis* but with the punctures fine, feeble and sparse, the surface more opaque, the sculpture coarse but not so dense and longitudinally plicatulose laterally; elytra in outline nearly as in *oviformis* but relatively less exceeding the prothorax in width, comparing the male types, in fact only slightly wider than that part, more strongly, though not more closely, and more muricately punctate, the sculpture becoming particularly rough toward the sides; abdomen minutely, sparsely punctate medially. Length 5.2-5.9 mm.; width 2.8-3.15 mm. California (Los Angeles Co.).
punctipennis n. sp.

5—Form narrower and more elongate-oval than in *inflatus*, convex, alutaceous above, bright rufous and shining beneath; head transverse, coarsely, densely punctato-scabrous, the epistoma distinctly

produced, broadly truncate, the converging sides before the eyes rather strongly arcuate; prothorax about two and a third times as wide as long, otherwise as in *inflatus* and quite as densely sculptured throughout; elytra fully a fourth longer than wide, more than three times as long as the prothorax and but slightly though evidently wider, unusually acutely and gradually ogival at tip, the sides feebly arcuate, rounding as usual at base, the punctures fine, irregular and well separated but more strongly muricate than usual, becoming more closely aggregated into obscure longitudinal and very faintly elevated lines laterally, the pleural impression subobsolete; abdominal segments narrowly margined with black at apex, the impressions of the third segment in the female very faint and subobsolete. Length 6.5 mm.; width 3.28 mm. California*curvipes* n. sp.

It is assumed that the small impressions subequally trisecting the width of the third abdominal segment at apex, visible in some individuals, pertain to the female, for the reason that my only specimen having the intromittent spicule protruded is devoid of these impressions. Of *oviformis* I have a very large series, exhibiting but little variability, and, although the species adhere closely to a common type of structure throughout, I am therefore somewhat confident of their validity as expressed above.

Emmenides n. gen.

In general facies this genus is not unremindful of *Metoponium*, but with the fine sculpture of *Telabis*. The frontal margin is entire and very broadly arcuato-truncate, the mandibles feebly cleft at tip, flat above, with a broad flat ridge externally at base, and the mentum has the usual small apical emargination. The antennæ are long and slender, the eyes rather large and notably prominent, the scutellum short but distinct and strongly transverse, and the hind tarsi are shorter than the tibiæ, with the basal joint much longer than the last. The single species is the following:—

Body oblong, parallel, convex, glabrous, shining, rather pale rufocastaneous throughout, the legs concolorous; head broad, not very coarsely but deeply and closely punctate, the sides much less prominent than the eyes, strongly converging and arcuate, merging gradually into the apical margin; prothorax three-fourths wider than long, much narrower at apex than at base, the sides evenly converging throughout and broadly, evenly arcuate, the apex sinuate, the angles right, not rounded, the side margins

distinctly reflexed and the base broadly, feebly, bisinately truncate, the punctures fine and sparse, becoming gradually rather coarse, dense and longitudinally confluent toward the sides; elytra three-fifths longer than wide, three times as long as the prothorax and scarcely wider, parallel, the sides scarcely arcuate, the apex gradually and narrowly parabolic, the punctures fine, very sparse, arranged in unimpressed, subeven series, becoming stronger and more close-set laterally, the intervals still more finely, sparsely and confusedly punctate, the sculpture not muricate; abdomen finely, sparsely punctate. Length 8.8 mm.; width 3.68 mm. Lower California (Cape San Lucas)**punctatus** Lec.

The metasternum is much shorter than the first ventral, a remarkable character in such an elongate and parallel species of this tribe and probably betokening vestigial or perhaps obsolete hind wings. The singular longitudinal elevation at each side of the elytral suture, very near the apex, is a character common in the Epitragini but unknown in the present tribe except in the present species.

Armalia n. gen.

This genus is allied in any way closely only to *Hylocrinus* and resembles the latter in general facies and sculpture, but the form of the epistoma is very exceptional in the present tribe, being a significant reminder of the usual lobe of the Epitragini. The angulation mentioned in the generic description, although feeble, is readily observed and very constant in both of the species before me. The only Mexican species of *Emmenastus* said by Champion to have the epistoma angularly produced is *constrictus*, but this differs very much in general form and facies from our species. The mandibles in *Armalia* are feebly bifid at tip and toothed above, the tooth of the left mandible feeble, that of the right large, porrect and pointed, grasping and aiding to retract the labrum. The metasternum is much longer than the first ventral, the wings being fully developed, and the base of the prothorax is strongly lobed at the middle. The hind tarsi are slender, much shorter than the tibiae and have the first joint longer than the fourth. Our two species are as follows:—

Form oblong-elongate, moderately convex, glabrous, feebly alutaceous, the elytra shining, brownish-testaceous, the legs more rufous, the head, prothorax and sterna piceous to blackish; head not very transverse, rather strongly, closely and simply punctate, the eyes large and moderately prominent, the sides converging and arcuate,

the frontal margin without trace of emarginations; prothorax nearly four-fifths wider than long, slightly wider behind the middle than at base, strongly narrowed anteriorly and deeply sinuate, with rather acute and prominent angles, the sides almost evenly and broadly arcuate; punctures only moderate in size but strong and rather close-set, becoming only slightly larger but deeper and coalescent laterally, each puncture with an exceedingly minute yellow seta; scutellum moderate; elytra but little more than one-half longer than wide, about three and one-half times as long as the prothorax but only very slightly wider, evenly, obtusely ogival in apical third, the sides parallel and nearly straight; punctures in even impressed series, continuing to the apex and becoming coarse and approximate laterally, the interstitial punctures very minute, sparse and more or less confused; abdomen finely but distinctly, sparsely punctate. Length 7.2 mm.; width 3.2 mm. Texas*texanus* Lec.

Form narrower, moderately convex, slightly alutaceous, deep black in color, the legs dark rufous; head as in *texanus* but rather less coarsely or closely punctate; prothorax formed nearly as in *texanus* but rather less transverse and with the punctures medially rather finer, becoming much coarser and close-set laterally but not as dense as in *texanus*; scutellum small, subparallel, truncate; elytra more elongate, two-thirds longer than wide, similarly about three and one-half times as long as the prothorax but scarcely wider, more gradually and acutely ogival in about apical third, the sides parallel and nearly straight, the sculpture similar but with the serial punctures less coarse laterally and the eighth stria less impressed and less coarsely punctured toward base than in that species. Length 6.6-7.7 mm.; width 2.65-3.0 mm. Texas (Brownsville),—H. F. Wickham.....*angularis* n. sp.

The impression of the eighth stria toward base, it being there more coarsely and closely punctured, is a rather distinct feature in this, as well as in some species of the following genus. The descriptions of *texanus* and *angularis* given above are both drawn from the male, but there are no striking secondary sexual characters observable, except that the head in the female is slightly smaller than in the male.

Hylocrinus n. gen.

While this genus is readily distinguishable from *Armalia* by the unlobed epistoma and simple or much less strongly toothed right mandible, it resembles it closely in the elongate form of the body, in its slender antennæ, feebly bifid apex of the mandibles, well developed and moderately prominent eyes, in hav-

ing the basal joint of the hind tarsi much longer than the fourth and the base of the prothorax lobed in the middle. It is a composite genus and may be resolved into the three following subgeneric groups: —

Mandibles subhorizontal, feebly toothed on the upper surface, the right tooth slightly the more developed, as usual, and feebly clasping the labrum; frontal margin varying from broadly and feebly arcuate to sinuato-truncate; mentum transverse, broadly rounded at apex, with a small broadly sinuate apical emargination; body very narrow and elongate as a rule, the sculpture usually rather coarse: metasternum but slightly longer than the first ventral... **Hylocrinus**

Mandibles shorter, stouter and more deflexed, convex above but not toothed, folding wholly beneath the labrum; body broader in form; metasternum much longer than the first ventral.....2

2 — Mentum less transverse than in *Hylocrinus*, biobliquely rectilinear at apex, the apical angle abruptly and sinuously emarginate; frontal margin feebly biemarginate, the epistoma generally somewhat advanced and always broadly sinuate..... **Locrodes**

Mentum shorter, transverse, the apex broadly arcuate, without trace of the small emargination so constant elsewhere in the tribe; frontal margin arcuate, not biemarginate, somewhat narrowly sinuate at the middle..... **Paravius**

The hind wings appear to be fully developed in the last two of these groups but not in the first, the metasternum being decidedly longer than the first ventral segment in the former but not so distinctly in the latter. The species may be described as follows: —

Hylocrinus in sp.

Frontal margin perfectly even throughout, without trace of minute emarginations at the ends of the oblique sutures2

Frontal margin broadly, feebly sinuato-truncate, sometimes biemarginate.....6

2 — Frontal margin broadly, feebly arcuate; species confined to southern California and western Arizona; body very elongate, narrow and moderately convex3

Frontal margin transversely rectilinear; body less elongate; species more eastern in range.....5

3 — Punctures of the pronotum strong throughout, becoming very gradually dense, coalescent and forming long parallel rugæ toward the sides, moderately close toward the middle. Body parallel, only moderately convex, shining, piceous-black, the under surface, legs and elytral suture more or less rufous; head rather closely and strongly punctured, the sides rather feebly converging, strongly arcuate, merging into the median parts through very broadly

rounded angles; prothorax four-fifths wider than long, subparallel, with feebly rounded sides, becoming more rounded and converging apically, the angles obtuse, the apex moderately sinuate, the surface feebly and indefinitely impressed at the middle before the base; scutellum moderate, constricted at base; elytra fully three-fourths longer than wide, three and one-half times as long as the prothorax and scarcely at all wider, parallel and nearly straight at the sides, gradually ogival in apical two-fifths, with regular unimpressed series of rather coarse, deep, non-muricate punctures, the interstitial punctures very fine, feeble and forming uneven single series; abdomen feebly rugulose, finely and sparsely punctured. Length 6.2 mm.; width 2.28-2.35 mm. Arizona.

tenuis n. sp.

Punctures of the pronotum more or less fine and notably sparse, becoming very abruptly coarser, dense and forming long parallel rugæ toward the sides 4

4—Form parallel, stouter than in *tenuis*, shining, piceous-black, the under surface and legs dark piceo-rufous; head nearly as in *tenuis* but rather more coarsely, densely sculptured; prothorax very moderately transverse, about three-fourths wider than long and not much less than a third as long as the elytra, narrowed gradually toward the sinuate apex, with the sides subevenly and rather strongly arcuate, the surface with a somewhat deep indentation before the middle of the base; scutellum small; elytra one-half to two-thirds longer than wide, very slightly wider than the prothorax, obtusely ogival in apical third, sculptured nearly as in *tenuis*, the serial punctures very close-set, those of the intervals in subeven series and somewhat minute and feeble; abdomen similar. Length 5.2-6.3 mm.; width 2.0-2.45 mm. California (San Diego)..... *longulus* Lec.

Form narrow but more elongate-oval than in *longulus* and paler in color, pale piceo-castaneous, the suture suffusedly paler, rufous, the under surface and legs red; surface shining; head nearly as in *longulus*, the prothorax shorter and more transverse, about four-fifths wider than long, rather more strongly narrowed at apex, with the sides subevenly but less strongly arcuate, otherwise similar; elytra one-half to three-fifths longer than wide, three and one-half times as long as the prothorax and but slightly wider, evenly and more acutely ogival at apex and with the sides rather more evidently arcuate, the sculpture nearly similar; tarsi very slender; metasternum equal in length to the first ventral. Length 5.2-6.2 mm.; width 2.1-2.42 mm. California (Los Angeles and San Diego Cos.)..... *flitarsis* n. sp.

5—Body decidedly shorter and relatively stouter than in any of the preceding species, shining, convex, rather dark and uniform rufotestaceous throughout; head not very coarsely or closely punctatostrigose, the sides moderately converging and not very strongly arcuate, the angles more distinct and less broadly rounded than in

the preceding species; prothorax four-fifths wider than long, very much narrowed at apex, with the sides subevenly and rather strongly arcuate, widest somewhat behind the middle and broadly impressed before the basal margin almost throughout the width, the punctures fine and sparse, becoming abruptly coarser, dense and forming long subparallel rugæ laterally; scutellum rather well developed, rounded, transverse, constricted at base; elytra one-half longer than wide, between three and four times as long as the prothorax, and, toward base, but little wider though distinctly wider and subinflated near apical third, the apex thence obtusely ogival; punctures only moderately coarse or close-set, perforate, in even unimpressed series, the interstitial punctures feeble and minute, forming irregular single series; abdomen finely, feebly rugulose and minutely, sparsely punctate. Length 5.8 mm.; width 2.72 mm. Texas.....**breviusculus** n. sp.

- 6—Form very narrow, elongate and but moderately convex, the prothorax subparallel, with the apex only just visibly narrower than the base, polished, dark testaceous, the elytra finely vittate along the punctured series with piceous-black; under surface and legs still paler, rufous; head alutaceous, moderately coarsely and not densely punctato-strigose, the sides converging and strongly arcuate, the angles very broadly rounded, the feeble emarginations obvious; prothorax short, four-fifths wider than long, the sides broadly and rather feebly arcuate, the punctures not very fine, deep, rather sparse, becoming somewhat gradually rather coarse, dense and longitudinally plicate toward the sides, the surface impressed before the basal lobe; scutellum small, transverse; elytra about two-thirds longer than wide, between three and four times as long as the prothorax and a little wider posteriorly, where they are slightly wider than at base, obtusely ogival at apex, the sides feebly arcuate, the humeri not exposed, the punctures not very coarse but deep, close-set, forming nearly even and barely impressed series, the interstitial punctures fine, feeble, forming very uneven single series laterally. Length 5.6–5.8 mm.; width 2.25–2.3 mm. Utah (southwestern) and Nevada (Las Vegas).

delicatulus n. sp.

Form somewhat as in *delicatulus* but larger and broader, similarly depressed, shining, dark castaneous, the under surface and legs paler, rufous; head three-fifths to two-thirds as wide as the prothorax, moderately coarsely but not very deeply, closely punctate; eyes large, the sides before them converging and arcuate, the emarginations subobsolete, the frontal margin very feebly sinuato-truncate; prothorax two-thirds wider than long, gradually and distinctly narrowed from base to apex, the sides subevenly and moderately arcuate, the apical angles obtuse and bluntly rounded, the basal right and blunt, the punctures fine and sparse medially, becoming rapidly somewhat coarse, dense and coalescent, forming long fine rugæ in lateral fourth; scutellum moderate, transverse;

elytra very long, fully three-fourths longer than wide, rapidly ogival in apical fourth, rather widest well behind the middle, where they are more than a fifth wider than the prothorax, fully four times as long, the punctures rather small but distinct, only moderately close-set in finely and barely impressed regular series, only slightly larger laterally, the intervals minutely, feebly punctured in very uneven single series throughout; abdomen very minutely, feebly and sparsely punctulate medially. Length 6.5-6.7 mm.; width 2.6 mm. California (San Diego).

depressulus n. sp.

Form more convex, the prothorax very distinctly narrowed at apex...7

7—Frontal margin perfectly even, not at all biemarginate, the epistoma not at all advanced, with the sinuation scarcely appreciable. Body elongate-oval, shining, brownish-testaceous, the under surface and legs pale, rufous; head rather coarsely punctured, sparsely on the vertex, densely anteriorly as usual, the sides converging, moderately arcuate, the angles rather broadly rounded; prothorax three-fourths wider than long, widest at about basal third, the sides almost evenly arcuate and distinctly converging from base to apex, the latter only moderately sinuate, with the angles rather obtuse, the punctures fine and notably sparse toward the middle, becoming closer and elongate, then still coarser, dense and longitudinally plicate in about lateral fourth, the median impression at base very feeble; elytra two-thirds longer than wide, more than three times as long as the prothorax and evidently wider, gradually rather acutely ogival at apex, the sides broadly and evenly arcuate, not inflated posteriorly, the punctures somewhat coarse, deep, extremely close-set, forming slightly uneven, unimpressed series, the interstitial punctures fine, feeble, not close-set and forming very uneven single series; abdomen finely and feebly rugulose, finely but not very sparsely punctate medially. Length 6.7 mm.; width 2.5 mm. Arizona.....*angustus* Csy.

Frontal margin with two very feeble emarginations, the epistoma feebly but evidently advanced, broadly sinuate at apex; oblique sutures rather deeply impressed.....8

8—Form elongate-oval, shining, blackish, the elytral suture and fine lines along the elytral intervals toward the suture, under surface and legs dark rufous; head rather coarsely, closely punctate, less coarsely and very densely so and paler in color apically, the sides converging and arcuate; prothorax three-fourths wider than long, the apex deeply sinuate, with the angles rather acute, about four-fifths as wide as the base, the sides evenly converging and broadly, evenly and rather feebly arcuate throughout, the punctures rather small but deep and distinct though sparse in about median third, then gradually becoming very dense, rather coarse and somewhat confluent toward the sides; scutellum moderate, transverse, narrowed at base; elytra two-thirds longer than wide, between three and four times as long as the prothorax and slightly

wider, ogival at tip, the sides broadly arcuate, the punctures only moderately coarse, close-set but shallow in slightly uneven and unimpressed series, the irregular interstitial series fine and still feebler; abdomen finely, sparsely punctured medially. Length 6.4 mm.; width 2.72 mm. California (Mokelumne Hill, Calaveras Co.),—F. E. Blaisdell.....*blaisdelli* n. sp.

Form elongate-oval, rather shining, colored nearly as [in *blaisdelli*, the under surface and legs brighter rufous and more polished; head rather coarsely, closely punctured, the sides strongly converging and broadly, evenly arcuate; prothorax rather more than three-fourths wider than long, the apex broadly sinuate and three-fourths as wide as the base, the sides more converging and a little more strongly, subevenly arcuate throughout, the punctures only moderately small, deep and rather close-set, becoming gradually coarser, densely crowded and longitudinally confluent laterally, the surface broadly and feebly impressed before the basal margin, except laterally as in *blaisdelli*; scutellum similar; elytra with rather fine, feeble and very close-set punctures in uneven unimpressed series, becoming coarse very near the base, the interstitial punctures smaller, extremely shallow and rather confused; abdomen highly polished, excessively minutely, sparsely punctulate medially. Length 6.7 mm.; width 2.8 mm. Texas.

cunctans n. sp.

Locrodes n. subgen.

Sculpture more or less strong and closer. Southern California.....2

Sculpture extremely fine, sparse and feeble. Utah and the Great Basin.....3

2 — Body oblong, moderately convex, alutaceous, black, the under surface and legs more or less rufo-piceous; head not coarsely but rather closely punctate, the frontal margin biemarginate, the epistoma notably advancing and broadly sinuato-truncate, the sides before the eyes moderately converging and evenly, moderately arcuate to the fine but distinct oblique sutures; prothorax short, nearly twice as wide as long, the moderately sinuate apex very much narrower than the base, the sides evenly and rather strongly arcuate, the punctures small but distinct, moderately sparse throughout, except in lateral fifth or sixth, where they become coarse and confluent; scutellum moderate, parallel at the sides; elytra but little more than one-half longer than wide, three and one-half times as long as the prothorax and scarcely wider, evenly ogival toward tip, the sides feebly arcuate, more strongly at base, the humeri not exposed; punctures rather small but distinct, moderately close-set in somewhat even, unimpressed series, the interstitial punctures minute and feeble, widely spaced in subeven single series; abdomen polished, minutely, sparsely punctate medially. Length 5.5 mm.; width 2.28 mm. California (San Bernardino Co.).....*piceus* Csy.

Body oblong, parallel, more elongate, rather convex, subalutaceous, piceous-black, the under surface dark, the legs paler, rufous; head not very coarsely but deeply and closely punctured, the frontal margin not at all bicmarginate, the oblique sutures subobsolete, the sides very strongly converging, evenly and rather feebly arcuate, the sinuato-truncate apex unusually contracted, only about half as wide as the width at the eyes; prothorax less transverse, four-fifths wider than long, the deeply sinuate apex only slightly narrower than the base, the sides evenly and rather strongly arcuate, the punctures not very small, deep and rather close-set, becoming gradually close, coarser and unevenly, longitudinally confluent laterally; scutellum well developed, shining, impunctate, rounded behind; elytra in form nearly as in *piceus*, but with the punctures coarse, deep and close-set in subeven and evidently impressed series, the interstitial punctures fine but distinct, arranged in rather uneven single series; abdomen finely but deeply, less sparsely punctate medially, the first segment in great part coarsely so laterally. Length 7.0 mm.; width 2.8 mm. California (near San Diego).....**oblongulus** n. sp.

3 — Prothorax widest before the base; scutellum well developed, about a sixth as wide as the base of a single elytron4

Prothorax widest at the base; scutellum variable.....5

4 — Oblong-oval, moderately convex, alutaceous, rather dark red-brown, the legs but little paler and more rufous; head very finely, sparsely punctate, less finely, densely so anteriorly, the sides strongly converging, evenly and strongly arcuate, the epistoma broadly sinuato-truncate, the sutures impressed posteriorly but obsolete toward the edge; prothorax short, nearly twice as wide as long, strongly narrowed and sinuate at apex, with the angles acute but not prominent, widest at two-fifths from the base, where the sides are strongly arcuate, becoming feebly converging basally and strongly and much less arcuate toward apex; punctures minute and rather sparse, becoming gradually larger and closer but not very coarse or coalescent laterally; elytra three-fourths longer than wide, between three and four times as long as the prothorax but not wider, obtusely ogival toward tip, the sides very slightly arcuate, the punctures very fine, close-set in feebly and finely impressed, slightly uneven series, the intervals extremely minutely, sparsely and unevenly punctulate. Length 7.0 mm.; width 2.8 mm. Utah (Great Salt Lake).....**laborans** n. sp.

Oblong-oval, rather more convex, the elytra strongly shining, the anterior parts slightly alutaceous, pale brownish-testaceous throughout; head finely but more strongly and less sparsely punctate than in *laborans* but otherwise nearly similar; prothorax less transverse, three-fourths or more wider than long, narrowed at the sinuate apex, scarcely visibly wider at basal third than at base, the sides broadly and more evenly arcuate, the punctures rather less fine but nearly as sparse, becoming similarly larger, closer and

subcoalescent laterally; elytra nearly four-fifths longer than wide, between three and four times as long as the prothorax and slightly wider, the punctures minute, rather feeble, close-set in irregular and wholly unimpressed series, the confused punctures of the intervals still more minute and sparse. Length 6.8-7.7 mm.; width 2.7-3.2 mm. Utah (Great Salt Lake).....**brunnescens** n. sp.

- 5 — Form oblong-oval, moderately convex, alutaceous, castaneous, the under surface piceo-rufous, the legs slightly paler; head minutely, sparsely punctate, densely so anteriorly, the frontal margin broadly sinuato-truncate, the sides strongly converging and evenly arcuate, the oblique sutures distinct throughout their extent; prothorax nearly four-fifths wider than long, only moderately narrowed and broadly sinuate at apex, the latter four-fifths as wide as the base, widest just before the basal angles, the sides evenly, broadly arcuate and moderately converging to the apex, the punctures minute and sparse, becoming gradually coarser and close, with the surface rugulose laterally as in the two preceding species; scutellum small, smooth, parallel, but little wider than long and about an eighth or ninth as wide as the base of an elytron; elytra as in *brunnescens*, with unimpressed and but slightly irregular series of extremely minute, not very close-set punctures, those of the intervals still more minute, sparser and irregularly uniseriate; abdomen shining, minutely, sparsely punctulate and feebly rugulose. Length 7.3 mm.; width 3.0 mm. Utah (Stockton),— H. F. Wickham **fraternus** n. sp.

Form oblong-oval, slightly stouter, rather more shining, piceous-black, the under surface and legs dark piceo-rufous; head nearly similar but with the oblique sutures more obliterated toward the margin and the minute punctures rather stronger; prothorax less transverse, about three-fourths wider than long and very much more narrowed from base to apex, widest at base, the sides evenly converging, evenly and still more feebly arcuate, the apex sinuate, about two-thirds as wide as the base, the sculpture nearly similar; scutellum much larger, rather more than a sixth as wide as the base of an elytron; elytra rather less elongate, more obtusely rounded at apex and more distinctly wider than the prothorax, almost similarly and extremely feebly sculptured, except that the very minute serial punctures are rather more approximate; abdomen nearly similar. Length 6.8-7.1 mm.; width 2.8-3.18 mm. Utah (Stockton).....**umbrosus** n. sp.

Paravius n. subgen.

Form oblong, parallel, rather feebly convex, polished, castaneous, the under surface and legs rufous; head rather coarsely, closely and subrugosely punctate, the eyes unusually prominent, the sides before them strongly converging and evenly, moderately arcuate, the apex unusually deeply sinuate and only about half the width at the eyes, the oblique sutures feeble, scarcely attaining the mar-

gin, which is not at all biemarginate; prothorax fully four-fifths wider than long, only moderately narrowed and deeply sinuate at apex, with the angles right, the sides evenly, moderately arcuate, with the edges notably reflexed; disk widest behind the middle, rather coarsely, deeply and moderately closely punctate, the punctures gradually but only slightly coarser though very dense laterally, forming long and interlacing longitudinal rugæ; scutellum moderate, constricted at base, obtusely angulate at tip; elytra three-fifths longer than wide, between three and four times as long as the prothorax but not evidently wider, slightly dilated posteriorly, gradually and rather obtusely ogival at apex, with finely and feebly impressed series of somewhat coarse, deep and close-set punctures, those of the intervals much smaller but distinct and unevenly uniserial; abdomen extremely minutely, sparsely punctate medially, highly polished. Length 6.25 mm.; width 2.65 mm. Lower California.....*marginatus* Csy.

In the four species of *Locrodes* from Utah, which form a natural group, the secondary sexual characters become interesting, especially those of the female, to which sex these singular characters seem to be confined in various parts of the Tentyriinæ, such as some Epitragids and in *Telabis punctulata*, in opposition to a rather general rule in the Coleoptera and as shown in the present subfamily in *Triorophus* and some other genera. All the species of the group referred to are defined above from the female, where the last dorsal segment, normally covered by the elytra, has at apex a very deep abrupt median emargination, from the bottom of which projects posteriorly an elongate, rapidly pointed and densely setose lobe, the last ventral having at the middle of its fine reflexed margin a very small abrupt and rounded sinus. In the male the last dorsal is simply subtruncate at tip, but the last ventral has a feebler and broader sinus, slightly protuberant at its middle and less sharply limited at its sides than in the female, this community of modification of the last ventral to both sexes reminding us of the asexual excavation in the Zopherini and Nosodermini. The setose lobe of the female is rather constant in form in three of the four species defined above, but in *laborans* it becomes broader. LeConte described *longulus* as apterous, but this is evidently not wholly true, although the metasternum is not as long as in the last two subgenera or in *Armalia*; the hind wings are in fact much abbreviated, as in such Mexican species as *tenebrosus* Champ.

Emmenastrichus Horn.

In this genus the body is oblong, parallel, moderately convex, coarsely sculptured and pubescent, with the head very short and broad, the frontal margin even and concealing most of the mouth parts from above, the mandibles being small, stout, rapidly narrowed and deflexed toward tip, with the apex very feebly bifid. The left mandible is broadly ridged externally above, but not evidently toothed, and the right has a very large pointed porrect dorsal tooth, which does not seem to clasp the labrum, although the latter is very strongly retractile. The mentum is moderately transverse, biobliquely rectilinear at apex, with an unusually broad and feebly rounded apical sinus, rather more than a third as wide as the maximum width of the mentum. The eyes are moderate in size and in prominence. The tarsi are rather stout, the posterior much shorter than the tibiae, with the basal joint slightly shorter, as well as decidedly thicker, than the fourth. The wings are probably aborted, at least to some extent, the metasternum being evidently shorter than the first ventral, notwithstanding the elongate form of the body. The rather long curved hairs of the upper surface are borne only by the interstitial punctures, the coarse serial punctures bearing each from its anterior margin merely an infinitesimal seta, only visible under high power. The type of the genus is the following: —

Oblong, parallel, rather shining, brownish-black above, black beneath, with the legs rufous; head very broadly, rectilinearly truncate, the sides nearly as prominent as the eyes, short, joining the apex through a strong even arcuation and becoming parallel toward the eyes, the punctures coarse, deep, simple, circular and somewhat separated; prothorax parallel, sparsely pubescent, scarcely three-fourths wider than long, the sides evenly and moderately arcuate, the broadly sinuate apex but very little narrower than the base, the side margins rather strongly reflexed; punctures coarse, deep, slightly separated, becoming still coarser and subcoalescent near the sides, the basal margin transverse, extremely feebly and broadly lobed toward the middle; scutellum moderate; elytra three-fifths longer than wide, barely three times as long as the prothorax and scarcely as wide, gradually acutely ogival at tip, the sides parallel and very feebly arcuate; punctures very coarse, perforate, simple, moderately close-set in series which become impressed toward tip, the intervals with two uneven series of fine

punctures bearing long, suberect, fulvous hairs; abdomen polished, feebly rugulose, rather coarsely but sparsely punctate. Length 8.0 mm.; width 2.8 mm. Lower California (San José del Cabo) *cribratus* Horn

Another species, differing apparently in its slightly less coarse sculpture and shorter pubescence, was also described by Dr. Horn from the same locality under the name *erosus*. I owe the single specimen of *cribratus* in my cabinet to the kindness of Mr. Charles Fuchs, of San Francisco.

Ditaphronotus n. gen.

The chief peculiarity of this genus is the remarkable excavations at the base of the pronotum, with which no analogy can be found in the subfamily, except perhaps in the still more extraordinary cavity characterizing *Dacoderus*. These crevasses, in the typical forms, are right-angled in shape, extending longitudinally to the basal margin and then along the latter toward the middle for a short distance and are very deep. With this singular character we have also another, rather exceptional in the subfamily, formed by the complete absence of the raised basal margin of the elytra, the acute line delimiting the epipleuræ being simply turned inward for a short distance at the humeri, and, perhaps correlated to some extent with this character, there is an abrupt basal abbreviation of the sixth to ninth series of punctures. The basal joint of the hind tarsi is unusually elongate, almost equaling the remaining three joints combined, and all the tarsi are clothed beneath with very stiff and subdecumbent spiculiform hairs. The eyes are prominent, moderately emarginate, the frontal margin evenly arcuato-truncate from a vertical viewpoint, but with the median part deflexed, forming a very feeble lobe when viewed longitudinally. The mandibles are very stout, bifid at tip, the left with a very obtuse dorsal tooth, the right with a large pointed and porrect dentiform projection on the upper surface, clasping the labrum. The metasternum in the typical species is a little shorter than the first ventral segment and the hind wings are probably vestigial. A typical species may be described as follows:—

Form oblong-oval, only moderately convex, glabrous, alutaceous in lustre, more shining beneath, black, picescent beneath, the legs

rufous; head rather coarsely but not densely punctate, the angles very broadly rounded; prothorax more than two-thirds wider than long, widest just behind the middle, the sides strongly and subevenly arcuate, strongly converging apically and basally, the apex sinuate, with rather obtuse angles and nearly four-fifths as wide as the base, which is feebly bisinuate, the angles right and not rounded, the punctures rather small and sparse but irregular, becoming abruptly coarse, close and subconfluent in lateral fourth or fifth, the basal excavations not connected by an impression along the beaded basal margin; scutellum moderate, transverse; elytra two and one-half times as long as the prothorax but not evidently wider, rather acutely ogival at tip, the sides feebly arcuate, the humeri minutely denticulate, the punctures coarse, close-set in ten slightly impressed regular series, including the marginal, the series extending to the apex, six to nine basally abbreviated, the interstitial punctures extremely minute, arranged in single series; under surface coarsely, sparsely punctured, the abdomen minutely so medially. Length 5.4 mm.; width 2.2 mm. Nicaragua (Ometepe).....***championi** n. sp.

Besides this species, the genus will without doubt comprise the Central American *Emmenastus foveicollis*, *confusus* and *laevicollis*, of Champion, the first apparently differing in its greater convexity and the other two in the different form of the prothorax, but the author describes these species as winged, although the figure of *foveicollis* certainly does not give that impression, and I feel confident that the wings are not large enough for flight in *championi*.

Steriphanus n. gen.

About half of the wingless species, heretofore referred to *Emmenastus*, are included in a somewhat heterogeneous group for which the above generic name is suggested. The only character exhibiting any marked instability is that relating to the base of the prothorax, which varies from rectilinearly truncate to strongly bisinuate or medially lobed. I fail to find any other attendant distinguishing structural feature, however, except certain dissimilarities in general habitus. The mandibles have the usual narrowed and deflexed, feebly bifid apex, the left hardly at all toothed above and the right with a small porrect tooth, feebly clasping the labrum. The eyes are moderate and not very prominent, the frontal margin subeven and not biemarginate, the mentum sinuate at apex, the antennæ long

and slender and the hind tarsi slender and filiform, with the basal joint much longer than the fourth. The metasternum is invariably much shorter than the first ventral segment and the body is oval, convex and glabrous. Many Mexican species, some of which were described by Mr. Champion in the "Biologia" under the name *Emmenastus*, will enter this genus, which, with the numerous American species, will prove to be extensive, the various forms being very local in distribution as usual in Sonoran genera. Our species, so far as known at present, are the following:—

- Prothorax transversely and rectilinearly truncate at base throughout the width2
- Prothorax subtruncate, sometimes very feebly lobed toward the middle; larger, more or less opaque species, with the prothorax narrowed from base to apex and having but slightly arcuate sides.....8
- Prothorax distinctly lobed at the middle of the base or evidently bisinuate10

2 — Prothorax inflated and more strongly rounded at the sides just behind the middle, thence converging and just visibly arcuate to the obtuse but not rounded basal angles, and still more converging and broadly subsinuate to the apical angles, which are somewhat prominent though slightly blunt. Body obese, strongly convex, polished, piceous-black, the legs bright rufous; head not very coarsely but deeply, not densely punctured, the sides strongly rounded, the apex broadly sinuate; epistoma slightly swollen, paler and more finely, very densely punctate; prothorax not quite twice as wide as long, the apex deeply sinuate and scarcely two-thirds as wide as the base, the punctures rather small but deep, close-set, becoming but little larger but closer, though not confluent, toward the sides; scutellum moderately large, smooth, transverse; elytra two-fifths longer than wide, less than three times as long as the prothorax and not wider, gradually acutely ogival at tip, with unimpressed series of rather coarse, close-set punctures, the intervals wide, finely and confusedly punctured throughout, without trace of series; abdomen feebly rugulose, minutely, sparsely punctate medially. Length 6.7 mm.; width 3.1 mm. Arizona (Holbrook),—H. F. Wickham.

discrepans n. sp.

- Prothorax not subprominently inflated behind the middle, the sides moderately converging from base to apex and broadly, subevenly arcuate, the surface strongly shining or polished throughout.....3
- 3 — Scutellum well developed, strongly transverse4
- Scutellum small or moderate in size, transverse.....5

- 4 — Form broadly oval, black, the legs piceo-rufous; head coarsely, rather closely punctate, the feebly tumid epistoma finely and very densely as usual, the sides moderately converging, evenly and moderately arcuate, the apex sinuato-truncate, the eyes moderate and not at all prominent; prothorax three-fourths wider than long, the sinuate apex nearly three-fourths as wide as the base, with the angles not prominent, widest near basal third, the punctures small but deep, rather well separated, becoming but little larger though close and somewhat longitudinally confluent laterally; elytra short, two-fifths longer than wide, between two and three times as long as the prothorax and scarcely wider, gradually obtusely ogival at tip, the sides parallel, broadly arcuate, having unimpressed series of rather small, moderately close punctures, somewhat coarse laterally and basally, the intervals finely, confusedly punctured throughout; abdomen feebly rugulose, with small but strong, somewhat close-set punctures medially, becoming coarse and conspicuous laterally. Length 6.0–6.7 mm.; width 2.8–3.0 mm. Arizona (Peach Springs),—H. F. Wickham.
lustrans n. sp.

Form narrowly oval, strongly convex, rufo-piceous, the anterior parts and under surface dark, the legs pale, rufous; head rather finely but closely, subevenly punctured throughout, the epistoma not much more closely; eyes much larger than in *lustrans* but not very prominent, the sides strongly converging, evenly and very moderately arcuate, the apex feebly sinuate; prothorax two-thirds wider than long, widest at base, the sides feebly and evenly arcuate, the sinuate apex nearly three-fourths as wide as the base, with the angles not prominent but scarcely blunt, the basal angles distinctly and very exceptionally rounded; disk with a fine marginal bead throughout, only interrupted toward the middle of the apex, the punctures moderately small, deep and slightly separated, with a narrow, even and subentire impunctate median line, becoming but little coarser but dense, subrugose and longitudinally confluent laterally; scutellum scarcely less than a fifth as wide as the base of an elytron; elytra nearly similar in form but almost one-half longer than wide, having feebly impressed series of rather coarse, deep, close-set punctures, the intervals extremely finely, sparsely and confusedly punctulate, though tending to irregular single series on some of the intervals; abdomen finely, rather strongly, somewhat sparsely punctulate medially. Length 5.3 mm.; width 2.45 mm. Texas (Laredo).....*nitescens* n. sp.

- 5 — Color piceous or paler.....6
Color deep black when mature, the legs piceous to blackish.....7
6 — Form rather narrowly oval, strongly convex, very dark piceous, the under surface dark, the legs pale, rufous; head not coarsely but deeply, very closely and subevenly punctate, the eyes moderate, the sides converging and arcuate, the apex sinuato-truncate; prothorax two-thirds wider than long, very slightly wider at basal

third than at base, the sides subevenly and rather strongly arcuate, the basal angles obtuse and slightly blunt; apex moderately sinuate and not less than three-fourths as wide as the base, the punctures strong though fine, well separated, becoming dense and longitudinally confluent, though not much larger, toward the sides; scutellum smooth, broadly rounded, about a sixth as wide as the base of an elytron; elytra nearly one-half longer than wide, about two and one-half times as long as the prothorax but not wider, gradually acutely ogival at tip, the sides parallel and broadly arcuate, the punctures small but deep, rather approximate in very obsoletely impressed series, the intervals very minutely, sparsely and confusedly, but toward the sides more distinctly, punctate, the punctures forming a nearly even series on the alternate intervals of the flanks; abdomen minutely, sparsely punctulate medially. Length 5.3–6.2 mm.; width 2.4–2.65 mm. Arizona (Peach Springs), — H. F. Wickham.....*lubricans* n. sp.

Form elongate-oval but slightly stouter, castaneous or testaceous, the under surface and legs rufous, the abdomen blackish except at the sides and tip; head with rather small but deep, somewhat close-set punctures, the sides less converging and more strongly arcuate than in *lubricans*, the apex more evidently sinuate; prothorax three-fourths to two-thirds wider than long, otherwise nearly similar, except that the sides are less strongly arcuate and the width at basal fourth less evidently greater than at base, the punctures much more close-set medially but less confluent toward the sides; scutellum about an eighth as wide as the base of an elytron; elytra nearly similar in form but more obtusely ogival at tip, similarly punctured but with the slightly irregular series wholly unimpressed; abdomen finely but more strongly and less sparsely punctate medially. Length 5.9–6.7 mm.; width 2.7–2.9 mm. Arizona (Winslow) and Utah (Leeds), — H. F. Wickham.

hilaris n. sp.

Form elongate-oval, convex, pale yellowish-testaceous throughout — possibly somewhat immature; head rather finely but loosely and substrigously punctured, very densely on the epistoma, the sides moderately converging, evenly and rather strongly arcuate, the apical margin evidently sinuate; prothorax strongly narrowed anteriorly, fully three-fourths wider than long, the deeply sinuate apex but little more than two-thirds as wide as the base, the sides broadly, feebly arcuate basally, becoming subparallel behind the middle, strongly converging anteriorly, becoming broadly and feebly sinuate toward the apical angles, which are however blunt and not prominent, the basal angles very obtuse and somewhat rounded; punctures moderately fine, impressed, strong, rather widely separated, becoming coarse, dense, rugulose and coalescent laterally; scutellum not more than a seventh as wide as an elytral base; elytra two and one-half times as long as the prothorax but not wider, acutely ogival at tip, with just visibly im-

pressed series of rather coarse, not very close-set punctures, the intervals very minutely, sparsely and confusedly punctulate; abdomen with relatively large, strong and only moderately sparse punctures medially. Length 5.7 mm.; width 2.58 mm. Texas (Laredo) **rutilans** n. sp.

- 7—Form elongate-oval, convex, deep black throughout, the legs dark piceo-rufous; head finely, rather irregularly but not densely punctate, the sides feebly converging and strongly arcuate, the apex broadly sinuato-truncate; prothorax fully three-fourths wider than long, widest somewhat behind the middle, the sides evenly and rather strongly arcuate from base to apex, the latter deeply sinuate and fully three-fourths as wide as the base, the apical angles right, not prominent, the basal obtuse and somewhat blunt; punctures fine, rounded, slightly separated, becoming very slightly larger, close and more or less coalescent near the sides; scutellum small; elytra one-half longer than wide, not quite three times as long as the prothorax and very slightly wider, parallel and broadly arcuate at the sides, the apex rather abruptly narrowed to the acutely ogival tip, the punctures small, not very close-set in rather disconnected, unimpressed and feebly defined series, becoming only slightly larger laterally, the intervals very minutely, sparsely and confusedly punctate; abdomen finely but rather strongly, moderately sparsely punctate toward the middle. Length 5.7–6.7 mm.; width 2.65–3.0 mm. New Mexico (Gallup, Albuquerque and Magdalena) **convexus** Lec.

Form nearly similar but rather more elongate, similar in color and lustre, the head with fine separated punctures, becoming dense anteriorly; prothorax similar but with the apical angles less blunt and the basal obtuse but not in the least rounded, the punctures quite as fine but sparser, separated by two or three times their own diameters, becoming close but only slightly larger and scarcely at all coalescent laterally; scutellum much more minute, only about an eighth or ninth as wide as an elytral base; elytra similar but somewhat more elongate, the interstitial punctures much more minute, the series thereby rendered more distinct, also being actually more regular and entire, though composed of no larger punctures; abdomen finely though strongly, moderately closely and distinctly punctured medially. Length 6.0 mm.; width 2.75 mm. Locality unrecorded but probably New Mexico.

unicolor n. sp.

Form stouter, larger, strongly convex, less shining, black, the legs dark rufous; head rather finely, closely punctured, minutely and very densely anteriorly; prothorax short, four-fifths wider than long, the deeply sinuate apex three-fourths as wide as the base, the angles subacute but not prolonged, the sides evenly, rather strongly arcuate, becoming feebly sinuate near the apical angles, the basal obtuse but not rounded; disk slightly wider at basal two-fifths than at base, finely but deeply, closely punctured, less finely,

very densely and subcoalescently so laterally; scutellum as in *convexus*, about a sixth or seventh as wide as an elytral base; elytra nearly as in *convexus*, but, at the middle, much more evidently wider than the prothorax, minutely, rather sparsely, confusedly punctate, more densely and with the surface less shining and rougher laterally, having unimpressed series of punctures which are fine and scarcely distinguishable suturally but rather coarse, close-set, subscabrous and distinct laterally; abdomen rather finely but strongly and somewhat closely punctured medially. Length 7.0 mm.; width 3.18 mm. Arizona (Hardy),—H. F. Wickham.....**nigrans** n. sp.

Form rather stout, oval, polished, glabrous, deep black, the legs rufopiceous, the form nearly as in *curtus* but less abbreviated and with the surface more shining; head finely, rather closely punctured, scarcely more finely but more densely anteriorly; prothorax four-fifths wider than long, the deeply sinuate apex much narrowed, but little more than two-thirds as wide as the base, a little wider near basal third than at base, the sides evenly arcuate, more converging and less strongly so anteriorly, the basal angles obtuse and blunt, the apical right and bluntly rounded; surface evenly convex, deeply, closely and not very finely punctate, becoming gradually rather coarsely, densely and subconfluently so laterally, the basal margin perfectly rectilinear throughout; scutellum transverse, broadly rounded behind; elytra two-fifths longer than wide, two and one-half times as long as the prothorax and not at all wider, obtusely ogival at apex, the sides rounding at base to the thoracic angles; surface convex, with subeven, unimpressed, subentire series of moderately coarse, not very close-set punctures throughout the width, much more distinct than in *curtus*, the intervals more finely and confusedly or very unevenly uniserially punctate; abdomen strongly and closely punctate. Length 5.3–6.0 mm.; width 2.38–2.75 mm. Mexico (Federal District).

***placidus** n. sp.

8—Integuments feebly shining, strongly alutaceous rather than opaque. Body stout, oblong-oval, somewhat strongly convex, black with a feeble piceous tinge, the under surface and legs obscure rufous; head with close, deep and not very coarse punctures, separated by more than their own diameters, finer and very dense on the epistoma, the sides only feebly converging and strongly arcuate, so that they are slightly more prominent than the eyes, the apex broadly sinuato-truncate, the oblique sutures very distinct throughout; prothorax barely two-thirds wider than long, the apex moderately sinuate and two-thirds as wide as the base, the sides evenly converging and evenly, very feebly arcuate throughout; surface sparsely and extremely minutely punctate, becoming rather abruptly coarsely and closely, though scarcely coalescently so laterally, feebly subexplanate near the hind angles, which are slightly obtuse and blunt; scutellum about a seventh as wide as an elytral

base, shining, rounded behind; elytra three-fifths longer than wide, not quite three times as long as the prothorax and barely wider, parallel, the sides rounding at base, the apex gradually obtusely ogival, the punctures very fine, widely spaced in regular unimpressed series, slightly larger toward the sides, the intervals sparsely, excessively minutely, irregularly punctulate; abdomen feebly rugulose, finely, sparsely punctate. Female having a very shallow rounded sinus at the tip of the last dorsal segment. Length 7.8 mm.; width 3.28 mm. Arizona (Tuçson).

alutaceus n. sp.

Integuments densely opaque..... 9

- 9 — Form elongate-oval, convex, colored as in *alutaceus*; head similar but rather more coarsely and closely punctate, the punctures separated by barely their own diameters; prothorax nearly similar but less narrowed anteriorly, the apex about three-fourths as wide as the base, the basal angles more obtuse and the surface near them more narrowly but more abruptly explanate, the sides more nearly straight than in either of the other species, rounding at base and apex, the punctures less minute, stronger and rather less sparse, becoming still more abruptly coarse, much denser and longitudinally confluent near the sides and also having a narrow impunctate median line, not evident in *alutaceus*; scutellum slightly larger, about a sixth as wide as an elytral base; elytra similar in form but much more evidently wider than the prothorax, the serial punctures larger and deeper, becoming in fact rather coarse toward the sides, the interstitial punctures similar; abdomen similarly rugulose but more strongly punctulate medially. Male having a small and strongly rounded, reflexed and extremely minutely, apically incised lobe at the apex of the last dorsal segment; female not observed. Length 7.2 mm.; width 3.25 mm. Arizona (southeastern parts near Camp Grant).

subopacus Horn

Form elongate-oval but stouter in form, deep black, the under surface and legs dark rufous; head finely but strongly, less closely punctate, the punctures separated by two or three times their own diameters but extremely dense on the epistoma, as in the preceding, the sides rather more converging, evenly and strongly arcuate in the male, more prominent laterally than in the female, the apical margin distinctly sinuate; prothorax nearly as in *subopacus* but larger, less narrowed at apex than in *alutaceus*, the surface near the hind angles only extremely narrowly and obsoletely explanate, the punctures fine but strong, sparse, becoming in similar manner abruptly coarse, dense and more or less confluent near the sides, an impunctate median line not apparent; scutellum well developed as in *subopacus*; elytra nearly similar, shorter in the female than in the male but only just visibly wider than the prothorax in either sex, the serial punctures only moderately small, deep and very distinct, becoming rather coarse laterally,

the interstitial punctures similar; abdomen much less rugulose, minutely, sparsely punctate medially. Female with a deep abrupt sinus, about three times as wide as deep at the apex of the last dorsal segment, the male having the same segment evenly but broadly, subangularly rounded at tip throughout the width. Length 6.2-8.0 mm.; width 3.23-3.5 mm. Arizona (near Tucson).....**peropacus** n. sp.

10 — Elytra elongate, parallel, body deep black, the under surface piceous-black, the legs rufous, the integuments polished; head rather coarsely, not densely but substrigosely punctate, finely, densely so at apex, the sides only feebly converging but strongly arcuate, becoming parallel toward the eyes, the epistoma feebly sinuate; prothorax not quite four-fifths wider than long, widest near the base, where the sides are arcuate, becoming strongly converging and nearly straight thence to the sinuate apex, which is about two-thirds as wide as the base, the basal angles obtuse and distinctly rounded, the punctures fine but strong, sparse, with a partial impunctate median line, rather abruptly coarse, dense and longitudinally confluent toward the sides; basal lobe moderate; scutellum small, a seventh or eighth as wide as an elytral base; elytra one-half longer than wide, or, in the female, a little less, barely as wide in the basal part of the prothorax, gradually narrowly rounded or subogival toward tip, the sides very feebly arcuate; punctures fine, coarse toward the sides, extremely close-set and crowded in virtually unimpressed series, the interstitial punctures extremely sparse and very minute, confused; abdomen minutely, sparsely punctate medially. Length 6.0-7.0 mm.; width 2.4-2.9 mm. Arizona.....**conicicollis** Csy.

Elytra similarly elongate, the body very elongate-oval, moderately convex, blackish-piceous in color, the legs pale rufous, the surface shining though just visibly alutaceous; head not finely or densely punctate, the punctures separated by nearly twice their own widths on the vertex; prothorax less narrowed anteriorly than in *conicicollis*, with a similar rather narrow and feeble basal lobe, about two-thirds wider than long, the apex but feebly sinuate and three-fourths as wide as the base, with the angles right and not prominent, the sides subevenly and moderately arcuate throughout, becoming subparallel basally, the basal angles right and evidently rounded, the punctures fine and sparse, becoming gradually rather coarse, dense, coalescent and forming long rugæ in only about lateral sixth; scutellum small, about an eighth as wide as an elytral base; elytra fully two-thirds longer than wide, about three times as long as the prothorax but not evidently wider, very gradually acutely ogival in fully posterior two-fifths, the sides very feebly arcuate, the series even, unimpressed and entire, composed of close-set punctures, very fine suturally, somewhat coarse, muricate and almost confluent, with the surface more opaque, laterally, the intervals excessively minutely, sparsely punctulate in very uneven single to double series; abdomen very minutely,

sparingly punctulate medially. Length 6.5 mm.; width 2.68 mm. Arizona (Riverside),—H. F. Wickham.....**libertus** n. sp.

Elytra oval, distinctly wider than the prothorax, where the basal lobe is strong and evenly rounded.....11

11₄.—Body elongate-oval, strongly convex, polished, dark castaneous, the under surface dark, the legs paler, rufous; head rather finely but perforately and not very closely punctate, the punctures close but not crowded, the epistoma arcuato-truncate, the sides strongly converging, evenly and only moderately arcuate; prothorax two-thirds wider than long, the evenly sinuate apex four-fifths as wide as the base, widest slightly behind the middle, the sides very evenly and rather strongly arcuate throughout, the basal angles right and not rounded, the punctures rather small but deep and separated by from two to three times their diameters, becoming obsolete along the basal lobe and rather abruptly coarse, confluent and forming longitudinal folds laterally, without median impunctate line, the surface broadly impressed toward the middle at base; scutellum small, transverse; elytra oval, gradually narrowed, with evenly arcuate sides, to the acutely ogival apex in apical half, less than one-half longer than wide and a fifth wider than the prothorax, the sides strongly arcuate, the humeri not exposed, the punctures fine, becoming coarse laterally, close-set in rather uneven and unimpressed series, the interstitial punctures fine, sparse, confused near the suture but frequently forming very uneven single series elsewhere; abdomen very minutely, sparsely punctate medially. Length 5.8 mm.; width 2.4 mm. Arizona (Winslow),—H. F. Wickham.....**discretus** Csy.

Body stouter, oval, convex, polished, dark rufous, the under surface and legs paler; head rather finely but very closely, substrigosely punctate, the sides moderately converging and strongly, evenly arcuate, the apical margin broadly and feebly arcuate; prothorax three-fifths wider than long, nearly as in *discretus*, except that the sides are parallel in basal two-fifths, becoming subsinuate toward base with the angles right and not rounded, moderately converging and straight toward apex, the punctures rather coarse, deep and close-set, becoming sparse or obsolete along the basal margin except at the sides, where they are rather abruptly coarse and longitudinally confluent; scutellum slightly larger, transverse; elytra as in *discretus* but more abruptly arcuately narrowed in only apical two-fifths to the more obtusely ogival tip, between two and three times as long as the prothorax and nearly a fifth wider, the sides strongly arcuate, the punctures stronger, coarse laterally, arranged in rather irregular unimpressed series, those of the intervals less sparse, more broadly confused and larger than in *discretus*, being about two-thirds as large as the serial punctures; abdomen rather finely but strongly, much more closely and conspicuously punctured medially than in *discretus*. Length 6.0 mm.; width 2.8 mm. Arizona (near Benson),—G. W. Dunn.
proprius n. sp.

Body shorter, relatively stouter and more strongly narrowed before and behind than in *proprius*, strongly convex, polished, black or piceous-black, the legs blackish, paler distally; head finely, rather closely, substrigosely punctate, the epistoma densely and normally, the apex broadly arcuate, the sides strongly so, the angles obsolete; prothorax two-thirds wider than long, widest near basal fourth, where the sides are strongly rounded to the base, thence unusually converging to the greatly narrowed apex, becoming nearly straight, the apex deeply sinuate and only two-thirds as wide as the base, with the angles somewhat acute and prominent; punctures deep, not very fine and rather close-set, becoming rapidly coarse, dense, coalescent and forming long longitudinal rugæ in about lateral fifth; scutellum small, smooth; elytra strongly oval, rather more than one-half longer than wide, fully three times as long as the prothorax, and, at the middle, nearly a fourth wider, gradually becoming acutely ogival almost in apical half, the sides evenly and strongly arcuate to the base of the prothorax, the punctures coarse laterally, close-set in rather uneven unimpressed series, those of the intervals almost as large, confused suturally, in uneven single series laterally; abdomen finely, sparsely punctured medially. Length 5.8 mm.; width 2.82 mm. Texas (El Paso), — H. F. Wickham.

perovatus n. sp.

Body much narrower than in any of the preceding species, elongate-oval, convex, rather dull in lustre, blackish, the under surface rufescent, the legs bright rufous; head strongly but not very coarsely, closely and strigosely punctate, the converging sides strongly arcuate, the apex broadly and more feebly; prothorax short, more than three-fourths wider than long, widest just behind the middle, where the sides are moderately arcuate, thence becoming subparallel and very feebly so to the base and moderately converging and straight to the apex, the latter rather deeply sinuate and fully three-fourths as wide as the base, with the angles somewhat acute but not very prominent, the punctures rather coarse and very close-set, becoming abruptly dense but not much larger and forming long longitudinal rugæ in lateral sixth or seventh; there is a short and somewhat tumid medial impunctate line near the base; scutellum small; elytra fully three-fifths longer than wide, more than three times as long as the prothorax and nearly a fifth wider, gradually rather acutely ogival in about apical third, the sides evenly and moderately arcuate, the punctures rather large but shallow, moderately close-set in slightly irregular series, those of the intervals nearly as large, the sculpture rugulose, rendering the punctures indistinct; abdomen minutely, sparsely punctate medially. Length 5.1 mm.; width 2.23 mm. Arizona (Nogales), — H. F. Wickham.**aridus** n. sp.

The species more immediately allied to *convexus* Lec., form a difficult study and will require care in discrimination. The

sexual characters pertaining to the coriaceous last dorsal, or, perhaps more properly the penultimate dorsal, are varied and valuable in separating species otherwise distinguishable with difficulty, but unfortunately this segment is not often displayed to view. The species are all very local and the singular and isolated group of more or less opaque forms allied to *subopacus*, seems to be confined to southeastern Arizona. *Placidus* is the species from Mexico City, said by Mr. Champion to be identical with *pulvinatus*, from Oaxaca, but it does not agree with the description of that species and is undoubtedly different.

Stictodera n. gen.

This genus in the second group of the present tribe, possesses a form and facies not unremindful of *Cryptadius* of the first group, and this resemblance is strengthened by the non-serial elytral sculpture. The body is not quite so broadly oval but the prothorax has the same form, being strongly narrowed from base to apex, with obtusely rounded basal angles. In the form of the tibiæ it is quite apart from any other type of the tribe. The frontal emarginations are very minute and the epistoma is extremely feebly produced, with its apex not very broadly but rectilinearly truncate, the eyes large and rather prominent, with the superciliary carinæ fine, short and unusually feeble, and the mentum has a small and circularly rounded abrupt sinus at tip. The mandibles are thick but narrowed and deflexed toward tip and are feebly bifid; they are not properly toothed above, although the right mandible has an obtuse dorsal swelling. The metasternum is slightly shorter than the first ventral segment and the body is probably wingless. The single species known thus far may be described as follows:—

Body stout, oblong-oval, moderately convex, slightly alutaceous, red-brown, the under surface and legs paler and more rufous, glabrous; head not very coarsely but strongly, closely punctate, the sides before the eyes unusually short, not much longer than the eye, strongly converging, evenly and moderately arcuate; prothorax short and very transverse, evidently more than twice as wide as long, the deeply sinuate apex about three-fifths as wide as the base, which is transversely truncate and not medially lobed, widest near basal third, the sides rather strongly arcuate basally, becoming strongly converging and less arcuate apically, the punc-

tures rather coarse, deep and very close-set, not differing much laterally, though if anything rather smaller, in exception to the rule, and crowded though not very coalescent; scutellum rather small, transverse, rounded, flat; elytra two-fifths longer than wide, between three and four times as long as the prothorax but only just visibly wider, subparallel, the sides feebly arcuate, the apex gradually obtusely ogival, the punctures very fine, rather sparse, but little less fine laterally, arranged throughout without order, the usual series not even traceable; abdomen alutaceous, minutely, sparsely punctate, the metasternum coarsely, the propleuræ strigose. Length 7.0 mm.; width 3.2 mm. Lower California..... *pinguis* Lec.

The description is drawn from the female, in which sex the apex of the dorsum is feebly sinuate at the middle, with the surface at the middle of the sinus tumid and abruptly though minutely and angularly incised; there is also another smaller, medially and minutely sinuate coriaceous segment posterior to this.

Melanastus n. gen.

This genus is composed of small species somewhat resembling *Blapstinus*, generally black and more oblong than oval, inhabiting the usually arid regions from northern California to Nebraska and southward to northern Mexico. The head is moderate in size as in the preceding genera, rounded in front, never biemarginate: that is, never having the lateral lobes differentiated or at all prominent. The antennæ are shorter and stouter than in the preceding genera, though cylindrical to the eighth joint, and the eyes are less developed than in any other genus of the tribe, not prominent, but, on the contrary, rather flat in the majority of species, strongly transverse and at least half divided by the more or less prominent canthus of the frontal margin, the mentum large as usual, with a small apical sinus. The mandibles are not more deflexed apically and are unusually deeply and unequally bifid at tip, the left not toothed, the right with a small porrect dorsal tooth clasping the labrum. The prothorax is usually subparallel, but little narrowed at apex, more or less arcuate at the sides and with transversely truncate base, somewhat closely fitted to the elytra, the latter with the punctures more or less imperfectly serial, the scutellum small and the anterior tibiæ rather short but straight, increasing in

thickness from base to apex and unusually strongly spinulato-rugose. The metasternum is slightly shorter than the first ventral segment, the wings vestigial, the surface glabrous and the basal joint of the hind tarsi evidently longer than the last. *Melanastus* is evidently allied to *Mesabates*, of Champion, described in the "Biologia," but does not possess the trilobed front of that genus. Our rather numerous species, including one from Mexico, may be defined as follows:—

- Eyes more distinct, coarsely faceted as usual, the prothorax finely but evidently margined at the sides.....2
- Eyes smaller, somewhat more finely faceted than usual, the pronotum not margined at the sides.....21
- 2 — Elytral series never impressed, except very finely and obsoletely in a few species as mentioned below; prothorax seldom much narrower at apex than at base.....3
- Elytral series distinctly and rather broadly impressed; prothorax subevenly and moderately narrowed from base to apex, — a very exceptional form in the present genus.....20
- 3 — Sides of the prothorax not distinctly sinuate before the obtuse basal angles.....4
- Sides of the prothorax subparallel and arcuate, distinctly sinuate for a short distance at the basal angles, which are thereby rendered more or less prominent, subacute and never at all blunt14
- 4 — Elytra not distinctly wider than the prothorax, the sides of which are subparallel.....5
- Elytra more or less evidently wider than the prothorax.....10
- 5 — Elytra shining.6
- Elytra dull, generally opaque.....7
- 6 — Form oblong-suboval, convex, shining, black, the under surface blackish, the legs dark rufous; head as wide as an elytron, rather coarsely but not densely punctate except at apex, where it is subrufescent, the surface very slightly alutaceous, the apex broadly arcuato-truncate; prothorax three-fourths wider to nearly twice as wide as long, the sides rather feebly arcuate, generally straighter toward apex and base, the basal angles only slightly obtuse and not at all blunt, the apex slightly narrower than the base, deeply sinuate, the punctures rather small but deep and sparse medially, becoming somewhat rapidly rather coarse, deep and close-set but scarcely confluent in lateral fourth; scutellum moderate, transverse, broadly rounded; elytra less than one-half longer than wide, three times as long as the prothorax or, in the female, a little more, acutely ogival at tip, the sides very feebly inflated and broadly

arcuate, the punctures moderate in size, very widely spaced in nearly even and wholly unimpressed series, the interstitial punctures but little smaller, arranged in irregular single series but broadly confused toward the suture; abdomen sparsely but rather strongly punctate medially. Length 4.8-5.3 mm.; width 1.85-2.2 mm. California (San Francisco).....**ater** Lec.

Form oblong-oval, slightly shorter than in *ater*, deep black, the legs dark rufo-piceous; head small, obviously narrower than an elytron, dull, very finely, rather sparsely punctate, the punctures coarser and close-set anteriorly, the sides strongly converging and strongly arcuate, the apex broadly arcuato-truncate; prothorax short, not quite twice as wide as long, the sides evenly and feebly arcuate, more converging anteriorly, the apex strongly sinuate, evidently narrower than the base, the punctures fine but deep, rather sparse, becoming closer and moderately coarse but still evidently separated in about lateral fifth; scutellum moderate, tumid; elytra two-fifths longer than wide, three times as long as the prothorax but scarcely perceptibly wider, the sides broadly, feebly arcuate, the apex gradually rather acutely ogival, the punctures somewhat coarse, close-set in subeven series, which are evidently though feebly impressed toward the suture, the interstitial punctures very fine, sparse, confused though sometimes forming uneven single series; abdomen smooth, minutely, sparsely punctate medially, Length 4.8 mm.; width 2.18 mm. California (near San Francisco),—G. W. Dunn.
mæstus n. sp.

Form nearly as in *ater* but less convex, still more highly polished, black, the legs picco-rufous; head rather finely but deeply, very closely punctured, not quite as wide as an elytron, broadly, evenly arcuate at apex; prothorax about three-fourths wider than long, the apex narrower than the base and deeply sinuate, the sides parallel, evenly and very strongly arcuate, the basal angles very obtuse, the punctures not very coarse but perforate and rather close-set, becoming somewhat abruptly not much larger but still closer and partially confluent in lateral fourth; scutellum rather variable, moderate to minute in size; elytra three times as long as the prothorax to somewhat less, suboval, acutely ogival at tip in the male, obtusely in the female, the punctures rather coarse, not muricate, deeply impressed, not very close-set in somewhat uneven series, the interstitial punctures smaller but distinct in rather irregular single series even near the suture; abdomen sparsely but rather strongly punctate medially. Length 5.5 mm.; width 2.2-2.35 mm. Arizona (Seligman and Canyon Cosnino).

nitidus Csy.

- 7— Color black, the elytral series not impressed..... 8
- Color piceous-black to dark brown, the elytral series very narrowly and feebly impressed 9
- 8— Body oblong-elongate, convex, slightly shining to alutaceous and sometimes duller; legs very dark rufous; head rather coarsely,

closely punctured, finely very densely so anteriorly, the sides convergent and evenly though moderately arcuate, joining the epistomal margin through a pronounced though rounded angle, the epistoma feebly and broadly lobed toward the middle; prothorax two-thirds wider than long, the sinuate apex narrower than the base, the sides subevenly and distinctly though moderately arcuate, the apical angles much deflexed, the basal very broadly obtuse but not rounded, the punctures rather small but deep, moderately separated, becoming slightly coarse and somewhat dense only very near the sides; scutellum moderate, transverse; elytra three-fifths longer than wide, not quite three times as long as the prothorax, gradually arcuato-ogival in apical two-fifths, the sides rounding toward base, the basal margin curving anteriorly toward the humeri, the punctures rather small but deep, moderately close-set in uneven series, the interstitial punctures fine, sparse and confused throughout; abdomen finely but strongly, somewhat sparsely punctate medially. Length 6.2-6.7 mm.; width 2.4-2.7 mm. California (middle coast regions)..... **obtusus** Lec.

- 9 — Form oblong, parallel, moderately convex, feebly shining, strongly alutaceous, dark brown in color, the legs dark rufous; head not very coarsely but deeply and very closely punctate, the sides converging and strongly, evenly arcuate, the angles not distinct, the epistoma broadly, feebly lobed, the tooth of the left mandible distinct, that of the right unusually large and acute; prothorax large, widest at the middle, three-fourths wider than long, the apex moderately sinuate and but little narrower than the base, the sides parallel, evenly and very strongly arcuate, the apical angles very strongly deflexed, the basal very obtuse, with the neighboring surface even, the punctures rather small but very deep and close-set throughout, nearly even and scarcely differing in any way toward the sides; scutellum rather well developed, transverse, sparsely and rather strongly punctate; elytra three-fifths longer than wide, fully three times as long as the prothorax but scarcely as wide as its median width, gradually and rather obtusely ogival apically, the sides rounding slightly basally, the basal margin only just visibly flexed anteriorly toward the humeri, the punctures not very coarse but deep, close-set and distinct in slightly uneven series, the interstitial punctures very fine, sparse and confused throughout; abdomen strongly, rather coarsely and closely punctured even medially. Length 6.6 mm.; width 2.45 mm. California (southern)..... **thoracicus** Csy.

Form, coloration and lustre nearly similar; head similar and about as wide as an elytron, but with the third antennal joint less elongate and only very slightly longer than the fourth; prothorax larger, barely two-thirds wider than long, the subparallel sides very much less strongly arcuate and becoming straight toward base, the basal angles less obtuse and rendered apparently somewhat prominent by reason of an oblique tumidity of the surface extending to them, and not traceable in *thoracicus*, the anterior angles less deflexed and

much less obtuse, the punctures similarly strong, close-set and subequal throughout, not at all different toward the sides but becoming noticeably sparser toward the apical angles than elsewhere, a character not noticeable in *thoracicus*; scutellum much smaller; elytra nearly similar and similarly punctate but fully as wide as any part of the prothorax; abdomen feebly rugulose, shining, strongly and not sparsely punctate. Length 6.8 mm.; width 2.7 mm. California (probably southern).....*exoletus* n. sp.

Form nearly similar but smaller, feebly shining, the elytra opaque, piceous-black, the legs pale and bright rufous; head notably larger, slightly broader than an elytron, dull, the punctures rather small but perforate and very close-set, the sides converging and arcuate, the apex very broadly, feebly and subevenly arcuate throughout, the antennæ shorter and stouter than in either of the preceding species; prothorax scarcely more than one-half wider than long, the moderately sinuate apex evidently narrower than the base, the subparallel sides very moderately, subevenly arcuate, the apical angles rather deflexed, right, the basal very obtuse as in *thoracicus*, the adjoining surface even; punctures strong, perforate and close-set, becoming but slightly coarser and very close though scarcely coalescent laterally; scutellum moderate, transverse, impunctate except sparsely at base; elytra barely one-half longer than wide, less than three times as long as the prothorax and equal in width, the punctures of the irregular series much finer than in the two preceding, rather close-set, those of the intervals minute and sparse, in great part confused; abdomen very finely, sparsely punctate medially. Length 5.3 mm.; width 2.3 mm. California (San Bernardino Co.).....*sterilis* n. sp.

10— Basal margin of the elytra oblique and nearly straight from the scutellum to the humeral angles; sides of the prothorax parallel and subevenly arcuate throughout. Middle coast regions of California.....11

Basal margin of the elytra strongly flexed anteriorly toward the humeri; prothorax more evidently narrowed apically in anterior half. Colorado and New Mexico.12

11— Body rather stout, strongly convex, polished throughout, deep black, the legs clear rufous; head somewhat coarsely, very deeply and closely punctate, equal in width to an elytron, very broadly arcuate throughout the apex, the sides converging and evenly, strongly arcuate; prothorax about two-thirds wider than long, the sides rather feebly arcuate, straight toward base, the angles obtuse, the apical angles rather deflexed, obtuse and blunt, the punctures fine but strong, rather sparse, becoming only slightly coarse and closer but still well separated laterally; scutellum small; elytra inflated behind the middle, scarcely one-half longer than wide and less than three times as long as the prothorax, but, behind the middle, at least a sixth wider, the sides broadly arcuate, the apex acutely ogival, the punctures moderately large, widely spaced in

subeven unimpressed series, those of the intervals very minute, sparse and feeble, generally uniserial laterally; abdomen smooth, polished, finely, sparsely punctate medially. Length 5.7 mm.; width 2.5 mm. California (San Francisco).....*lucidulus* n. sp.

Body nearly similar but less stout, duller and alutaceous in lustre, deep black, the legs piceous-black; head smaller, scarcely as wide as an elytron, nearly similar in form and sculpture; prothorax almost similar in form but less full before the middle, with the similarly moderately arcuate sides not becoming straight basally, the angles very obtuse, the anterior angles not so deflexed but obtuse, the apex similarly moderately sinuate and a little narrower than the base, the punctures similarly very fine but more close-set, becoming gradually rather coarse though scarcely closer toward the sides; scutellum small; elytra nearly similar in form and sculpture but subopaque, with the interstitial punctures more distinct and the series much more obsolete toward apex; abdomen alutaceous, very finely, sparsely punctate medially. Length 5.6 mm.; width 2.4 mm. California (Mt. Diablo)... *otiosus* n. sp.

- 12 — Color black, the legs clear but dark rufous, the body parallel. Rather stout, moderately convex, somewhat shining, the head not very coarsely but deeply and very closely punctured, broadly arcuate from side to side at apex, the sides only moderately converging, strongly arcuate, the third antennal joint fully twice as long as wide; prothorax but little more than one-half wider than long, the sinuate apex very distinctly narrower than the base, widest near the middle, the sides rather strongly and subevenly arcuate throughout but more converging apically, the basal angles very obtuse, the apical slightly obtuse and narrowly rounded, the punctures rather fine but deep, rather well separated but becoming gradually moderately large, close and somewhat longitudinally confluent laterally; scutellum well developed, transverse, narrowed toward base; elytra short, barely two-fifths longer than wide, two and one-half times as long as the prothorax and only slightly wider, perfectly parallel, with nearly straight sides rounding only very near the base, abruptly, obtusely rounded in barely apical third, the punctures small, rather close-set in extremely imperfect series, those of the intervals fine but distinct, confused laterally, almost as large as those of the broken series; abdomen polished, somewhat coarsely, not very sparsely, conspicuously punctate. Length 5.6 mm.; width 2.5 mm. Colorado (Canyon City),—H. F. Wickham..... *implicans* n. sp.

Color piceous or paler, the elytra generally paler than the anterior parts, the body oval..... 13

- 13 — Form rather stout, strongly convex, shining, castaneous, the under surface and legs paler and rufous; head somewhat coarsely, very deeply and closely punctate, broadly arcuate at apex, the sides only feebly converging and moderately arcuate, the third antennal joint fully twice as long as wide; prothorax about three-fifths

wider than long, the sides subevenly and rather strongly arcuate, more converging anteriorly, widest just behind the middle, the basal angles obtuse, the apical only moderately deflexed, right, only slightly blunt, the punctures rather small but deep, moderately separated, becoming rapidly larger, close and longitudinally subconfluent in about lateral fifth; scutellum as in *implicans*; elytra much more oval and more gradually and acutely ogival at tip, nearly one-half longer than wide, not quite three times as long as the prothorax, and, at the middle, obviously wider, the sides parallel and broadly, evenly arcuate, the punctures rather sparse, moderate in size and slightly larger laterally, confused throughout, the larger arranged in imperfect series becoming more distinct laterally; abdomen strongly, rather closely and conspicuously punctate throughout but especially toward the sides as usual. Length 6.2 mm.; width 2.75 mm. New Mexico (Santa Fé).

fallax Csy.

Form slightly less stout, otherwise nearly similar, shining, blackish-piceous, the elytra rufescent, the legs picco-rufous; head nearly similar, about as wide as an elytron, the oblique sutures more distinct but not attaining the margin; prothorax nearly similar but rather shorter, the sculpture similar, except that the punctures do not become sparser toward the sides anteriorly as is the case in *fallax*; scutellum rather smaller, sometimes minute, the elytra nearly similar in general form but with the serial punctures extremely minute and still very small even toward the sides, the series imperfect, the interstitial punctures very minute, sparse and confused, equal to the serial punctures suturally but notably smaller laterally; abdomen finely, sparsely punctate medially, much less conspicuously so than in *fallax*. Length 5.6-5.8 mm.; width 2.32-2.5 mm. Colorado (Cab. Levette)...**finitimus** n. sp.

14—Elytral series very obvious, distinct throughout the width of the elytra15

Elytral series traceable with difficulty, especially toward the suture...17

15—Elytra opaque. Body rather stout, oblong, parallel, rather strongly convex, deep black, the legs clear but dark rufous; head strongly, closely punctate, broadly and almost rectilinearly truncate at apex, the sides converging, broadly arcuate, the angles obvious though broadly rounded; antennæ even somewhat stouter than usual; prothorax subopaque, nearly three-fourths wider than long, moderately narrowed and rather feebly sinuate at apex, the sides broadly and somewhat feebly arcuate, more converging apically than toward base, the apical angles deflexed, right and blunt; punctures strong and close-set, becoming dense and somewhat larger laterally; scutellum small, tumid; elytra one-half longer than wide, scarcely three times as long as the prothorax and not evidently wider, the sides very feebly arcuate, the apex gradually and obtusely ogival, the punctures rather strong laterally, somewhat close-set in subeven unimpressed series, disappearing only

at apex, the interstitial punctures fine but strong, sparse, generally confused but forming irregular single series at some parts; abdomen slightly alutaceous, smooth, minutely and sparsely punctate medially. Length 6.0 mm.; width 2.5 mm. California (Humboldt Co.)*crassicornis* Csy.

Elytra more or less obviously shining.....16

16 — Form rather stout, oblong-oval, strongly convex, very feebly alutaceous in lustre, deep black, the legs dark rufous; head rather coarsely, irregularly and somewhat closely punctate, the frontal margin very feebly and broadly angulate, the sides converging and arcuate, the angles feebly marked; antennæ rather less stout than in *crassicornis*; prothorax but little more than one-half wider than long, the sides subparallel, evenly and moderately arcuate, but little more converging anteriorly than posteriorly, the sinuation at apex strong, the apical angles right but narrowly rounded, the punctures not coarse but strong, well separated, becoming gradually a little larger and closer but not crowded, though tending to longitudinal coalescence, laterally; scutellum small, rounded behind; elytra slightly inflated, about two-fifths longer than wide, between two and three times as long as the prothorax and evidently, though slightly wider, the sides arcuate, rapidly rounding to the obtusely ogival apex, the series unimpressed, subeven, with not at all coarse, well separated but distinct punctures, the interstitial punctures very fine, confused suturally, sometimes forming uneven single series laterally; abdomen polished, smooth, strongly and not very sparsely punctate medially, coarsely and subrugosely so laterally. Length 6.0 mm.; width 2.45 mm. California (Amedee, Lassen Co.), — H. F. Wickham.....*æquicollis* n. sp.

Form narrower, elongate-oval, strongly convex, deep black, the legs dark rufo-piceous, polished; head not coarsely but very strongly and closely punctured, the sides converging and strongly arcuate, the apex broadly, very feebly angulato-arcuate, with the angles rather evident though obtusely rounded; prothorax two-thirds wider than long, the sides subevenly and rather strongly arcuate, slightly more converging anteriorly than posteriorly, the apex deeply sinuate, the apical angles right but scarcely at all blunt, the punctures not coarse but deeply perforate and moderately close-set, with a short impunctate discal median line, toward the sides only slightly larger or closer and still evidently separated; scutellum moderate, subquadrate, slightly transverse; elytra not quite one-half longer than wide, scarcely three times as long as the prothorax and not evidently wider, the sides broadly, evenly arcuate, gradually and obtusely ogival at apex, the serial punctures moderately coarse laterally, not very close-set, the series very feebly subimpressed suturally, the interstitial punctures very fine, unevenly uniserial throughout; abdomen finely, sparsely punctate medially, the elytral and abdominal punctures each with a very minute silvery seta. Length 5.25 mm.; width 2.25 mm. California (Truckee, Nevada Co.)*vegrandis* n. sp.

Form oblong-oval, rather stout, less convex, highly polished, deep black, the legs dark or subpiceo-rufous; head small, evidently narrower than an elytron, arcuate at apex with obsolete angles, rather coarsely, very closely punctate, rufescent at apex; prothorax very short and transverse, fully four-fifths wider than long, the sides subparallel, evenly and strongly arcuate to the abrupt basal sinus, the punctures fine but strong, well separated, becoming rather rapidly much larger and closer though not very coarse and still slightly separated in about lateral fourth; scutellum moderate, transverse; elytra inflated, about one-half longer than wide, fully three times as long as the prothorax and distinctly wider at the middle, the sides evenly and rather strongly arcuate, the apex obtusely ogival, the unimpressed, subeven series strongly and rather closely punctured, the intervals with uneven single series of punctures which are about half the size of the serial punctures; abdomen not very finely, strongly and somewhat sparsely punctured medially. Length 4.8 mm.; width 2.12 mm. New Mexico (Fort Wingate)*coarcticollis* Csy.

Form somewhat as in *coarcticollis* but more elongate and with much finer elytral punctures, deep black, the legs piceous-black, rather shining but not polished; head distinctly narrower than an elytron at the middle of its length, transversely suboval, the sides parallel, the angles very broadly rounded, the apex arcuate; punctures not very small, strong, rather well separated; prothorax not more than three-fifths wider than long, the sides subevenly and moderately arcuate, becoming deeply sinuate and then parallel and straight for a noticeable distance to the rectangular basal angles, the punctures fine and moderately sparse, becoming gradually moderately coarse, deep and slightly separated laterally; scutellum rather well developed, subtumid, transverse and punctate; elytra inflated, one-half longer than wide, barely three times as long as the prothorax and, at the middle, fully a fifth wider, gradually ogival in apical two-fifths, the sides evenly and very evidently arcuate to the rather acute and pronounced humeri, which are not exposed basally, the basal line curving rapidly forward laterally, the serial punctures very fine, not very close-set and but little less fine laterally, the intervals with extremely irregular single series of very minute punctures; abdomen polished, feebly rugose, finely but strongly, not closely punctured medially. Length 5.7 mm.; width 2.4 mm. Utah (Marysvale), — H. F. Wickham.

ludius n. sp.

17 — Elytra gradually narrowed and with feebly arcuate sides at apex, the tip very acute. Body elongate-oval, not very stout, convex, feebly alutaceous, deep black, the legs dark rufo-piceous; head not quite as wide as an elytron, strongly, very closely punctate, with a small elongate impunctate spot at the middle of the vertex, the apex strongly arcuate from side to side, the sides strongly arcuate with obsolete angles; prothorax two-thirds wider than long, the sides subevenly and rather strongly arcuate, somewhat

more converging apically, widest behind the middle, the sinuate apex distinctly narrower than the base, the punctures relatively large, very deep and close-set, somewhat uneven, becoming gradually rather coarse and very close laterally; scutellum small, quadrate; elytra fully one-half longer than wide, three times as long as the prothorax but only just visibly wider, the sides very feebly arcuate, the punctures fine, rather sparse, confused though with some feebly defined and subeven series toward the sides; abdomen highly polished, rather sparsely but not very finely, strongly punctured medially. Length 5.2 mm.; width 2.28 mm. Colorado.

acuminatus n. sp.

Elytra more rapidly, arcuately narrowed and obtusely ogival at tip..18

18—Antennæ very short, the seventh and eighth joints wider than long. Body very small, oblong-oval, moderately convex, rather stout and shining, deep black, the legs piceo-rufous; head small, not as wide as an elytron, rather finely but strongly, closely punctate, broadly arcuate at apex, the sides almost parallel, the angles broadly rounded but evident; prothorax about three-fifths wider than long, widest just behind the middle, the sides distinctly arcuate, more feebly so and feebly converging before the widest section, more abruptly rounded posteriorly to the ante-angular sinus, the apex rather feebly sinuate, but little narrower than the base, the punctures strong, separated by nearly twice their diameters, gradually but little larger and irregular but very close-set in part laterally; scutellum moderate, transverse; elytra inflated, two-fifths longer than wide, barely three times as long as the prothorax, and, at the middle, nearly a fifth wider, the sides parallel and distinctly arcuate, the punctures fine and sparse but rather deep, confused though with some feebly defined series basally and laterally; abdomen finely, sparsely punctured medially. Length 4.3 mm.; width 1.95 mm. Colorado (Garland)...**parvus** n. sp.

Antennæ less abbreviated, the eighth joint fully as long as wide as usual

19—Form rather stout, oblong, parallel, rather strongly shining, deep black, the legs piceo-rufous; head small, very evidently narrower than an elytron, nearly as in *parvus* but more aciculary punctured; prothorax relatively larger, three-fifths wider than long, widest near the middle, nearly as in *parvus*, the punctures rather finer and closer but similarly deep and perforate, becoming gradually but little larger though very close-set and even laterally and with a rounded median impression at base; scutellum small, transverse; elytra less oval, not inflated, two-fifths longer than wide, scarcely more than two and one-half times as long as the prothorax and not evidently wider, the sides parallel and feebly arcuate, the punctures minute, rather sparse, confused though with feeble evidences of irregular series basally and laterally; abdomen smooth, polished, slightly rufescent, not very finely but sparsely punctate. Length 4.7 mm.; width 2.17 mm. Nebraska.

acutus Horn

Form less stout, strongly convex, slightly alutaceous, deep black, the legs rufo-piceous; head as wide as an elytron and more transverse but otherwise similar, the punctures less aciculate, strong, perforate and close-set; prothorax relatively smaller, but little more than one-half wider than long, otherwise similar and rather feebly sinuate at tip but with the punctures a little larger and less close-set, although similarly crowded laterally and with the base not quite as wide as the base of the elytra, the humeral angles being slightly exposed at base; scutellum moderate, transverse; elytra narrower and more elongate in the female, the only sex at hand, with the sides much less arcuate, nearly one-half longer than wide, scarcely three times as long as the prothorax and very little wider, the punctures somewhat sparser but rather stronger and, although generally confused, more distinctly seriate at various parts of the surface than in *acutus*; abdomen minutely, sparsely punctate medially. Length 5.0 mm.; width 2.15 mm. Colorado (Cab. Levette.).....**exiguus** n. sp.

20 — Form oblong-oval, strongly convex, polished, the elytra feebly alutaceous, black, the anterior parts and under surface occasionally and sometimes the elytra, also, though less strongly, rufescent, the legs dark rufous or paler; head moderately coarsely and very closely punctate, the frontal margin broadly, rectilinearly truncate, the sides converging but strongly arcuate, becoming parallel toward the eyes, the angles obliterated; prothorax two-thirds to three-fourths wider than long, the sides moderately converging, subevenly and moderately to feebly arcuate from base to apex, the latter only very feebly sinuate, the punctures deep and rather coarse, more or less evidently separated, becoming abruptly dense, though not much larger, and longitudinally anastomosing in lateral sixth or seventh; scutellum moderate, transverse, projecting behind the basal margin; elytra short, two-fifths longer than wide, scarcely two and one-half times as long as the prothorax and somewhat wider, the sides rounding toward base, the apex rather acutely ogival, the punctures of the broadly impressed and almost regular series moderately coarse, close-set, those of the intervals very minute, confused; abdomen smooth, polished, finely but strongly, sparsely punctured medially. Length 4.4-5.3 mm.; width 1.8-2.25 mm. California (San Diego). [= *nanulus* Csy.].....**obesus** Lec.

21 — Body oblong, stout, moderately convex, rather shining, deep black, the legs black with slightly piceous tinge; head somewhat coarsely, deeply, densely punctate, the punctures longitudinally confluent laterally, smaller but not crowded on the epistoma, the anterior margin strongly and almost uniformly arcuate from one eye to the other; antennæ black, slightly paler distally; prothorax transverse, fully four-fifths wider than long, the sides subevenly and strongly arcuate, sometimes more arcuate near the base, the apex deeply sinuate, about three-fourths as wide as the base, with the angles slightly obtuse and very blunt, the basal angles very

obtuse, the punctures small, elongate, very close-set, becoming gradually not larger or transversely closer but longitudinally anastomosing laterally; scutellum moderate, transverse; elytra evidently less than one-half longer than wide, three times as long as the prothorax to materially less and equal in width, the sides very feebly arcuate, the apex somewhat acutely ogival, the punctures rather small but deep and distinct, not very close-set and uniform in size throughout, generally confused but with ill-defined and incomplete series traceable here and there; abdomen with rather small but deep, moderately sparse, conspicuous punctures medially. Length 4.8-5.7 mm.; width 2.0-2.5 mm. Mexico (Chihuahua—near Colonia Garcia, 7,300 feet elevation),—C. H. T. Townsend.

* *sonoricus* n. sp.

Body nearly as in *sonoricus* but rather less stout and with the elytra much more evidently seriate, black or piceous-black, the legs and antennæ obscure rufous, moderately shining; head moderate, the sides feebly converging and slightly arcuate, the apex arcuate, the punctures rather fine but deep, elongate and longitudinally sub-coalescent; prothorax variable, from a little less to obviously more than twice as wide as long, the sides subparallel and strongly, evenly arcuate, sometimes more converging anteriorly from behind the middle—probably in the male,—the hind angles very obtuse but not blunt or prominent, the punctures fine, perforate, very close, becoming but little less fine though longitudinally confluent gradually toward the sides; scutellum variable; elytra scarcely one-half longer than wide, three times as long as the prothorax to obviously less and not at all wider, ogival behind, the sides feebly arcuate, the basal line curving forward moderately toward the humeri, the punctures rather small but deep and conspicuous, only moderately close-set in subeven, unimpressed series, scarcely visibly larger laterally, the intervals with sparse, confused punctures, but little smaller than those of the series, rendering the latter less obvious; abdomen finely but strongly, sparsely punctate. Length 5.2-5.4 mm.; width 2.2-2.3 mm. Arizona (Fort Apache)*nuperus* n. sp.

As remarked by Mr. Champion of *Mesabates*, many of the species of *Melanastus* greatly resemble *Blapstinus* in general facies, being more elongate, narrower and less convex than in *Steniphannus*. The species appear to be satisfactorily differentiated, but the series of specimens representing *sonoricus* and *nuperus* in my cabinet are rather puzzling; the description relates to normal and fully formed individuals but, in several of the former species, the punctures toward the sides of the prothorax are notably less crowded; in one specimen of each species the prothorax is widest near the base; in another, of *sonoricus*, the

elytra become rugose, an accidental variation often seen in *Coniontis* and some other Tenebrionids.

Tribe AUCHMOBINI.

This is the only tribe, the propriety or legitimacy of which is at all doubtful to me. The single species, *Auchmobius sublævis*, was described many years ago by LeConte (Ann. Lyc. N. Y., 1851), in few words and has been alluded to twice since that time by Horn. The following descriptions are based wholly upon these published observations. There is but one described genus as follows:—

Clypeus produced anteriorly, oblique at the sides, the apex deeply emarginate, covering the labrum [LeConte]; labrum moderately prominent, feebly emarginate [Horn]; eyes feebly emarginate, transverse, without supra-orbital carina; mentum large, flat, subpentagonal, the apex emarginate; palpi and antennæ wanting in the type specimen [LeConte]; maxillary palpi slender, with the last joint broader; antennæ with the first three joints nearly equal and longer than the others, four to ten gradually increasing in width, compressed, wider than long and trapezoidal, the last joint oval, acute and smaller than the preceding [Horn]; anterior tibiæ not at all dilated, the apex truncate [LeConte], with the outer angle prolonged, the tarsi with spinous hairs beneath [Horn]; mandibles obtuse, feebly grooved above, not clasping the middle lobe of the epistoma, allowing the labrum to be partly visible while they are completely invisible from above when folded [Horn]; posterior coxæ approximate. Body somewhat elongate, convex, slightly dilated posteriorly [LeConte], very robust, broadly oval, very convex [Horn]; prothorax and elytra closely joined, the facies somewhat that of *Eurymetopon*..... **Auchmobius**

If the antennæ are properly described above, the necessity for tribal separation of *Auchmobius* becomes quite evident.

Auchmobius Lec.

The single described species is the following, the diagnosis being that of LeConte (Ann. Lyc. V, p. 140):—

Oblong, somewhat elongate, convex, black, rather shining; prothorax finely punctulate, more than twice as wide as long, the base truncate, the sides slightly rounded; elytra finely punctate [rather coarsely—Horn], behind the base somewhat broader, narrowed toward apex, strongly declivous and finely, less densely muricate. Length 10.0 mm. California (Vallecito) [LeConte]; Owens Valley and Tejon [Horn]..... **sublævis Lec.**

There can be but little doubt that two or three species have been confounded by the two authors, but it is less likely that there can be more than the one genus, although the discrepancies in the tibial characters, as noted above, seem to be rather pronounced. It may be noted that *sublævis* is larger than any known species of the tribe Eurymetoponini, excepting the Mexican genus *Posides*, of Champion.

Tribe TRIMYTINI.

The genera of this tribe differ among themselves in very much the same way and to nearly the same extent as those of the Eurymetoponini, excepting one element of minor importance relating to the basally narrowed prothorax of *Chilomctopon*, which is foreign, so far as known, to that tribe. In geographic range the two tribes coincide closely, except that the Trimytini do not seem to invade the true Pacific coast faunal region, and they also possess a similar corporeal habitus. Our genera may be readily separated by the following characters:—

- Outer ridge of the mandibles very broad, not definitely dentiform at base..... 2
- Outer ridge very narrow, with a small dentiform protuberance at base..... 3
- 2 — Body short, glabrous, convex, wingless, the metasternum somewhat shorter than the first ventral segment and with the usual transverse grooves represented only by an unimpressed line of smaller punctures; eyes moderately large and not prominent, generally about two-thirds divided by the canthus of the frontal margin; prothorax usually widest at base. [Type *T. pruinos* Lec.].....**Trimytis**
- Body elongate, convex, glabrous, winged, the metasternum very much longer than the first ventral and with very deep and subentire antecoxal transverse grooves; eyes large, slightly prominent and only very slightly emarginate anteriorly; tarsi long, the basal joint of the posterior longer than the last two combined; prothorax widest at about the middle, the apex and base subequal; last antennal joint normal, about as long as the tenth. [Type *P. ampli*enne n. sp.].....**Prometopion**
- 3 — Body as in *Prometopion* but smaller and narrower, convex, glabrous, fully winged, the metasternum and transverse grooves similar, the eyes similarly large, prominent and only very feebly emarginate anteriorly; tarsi long, the basal joint of the posterior variable; prothorax always narrowed toward base and widest

before the middle; last antennal joint elongate, sometimes extremely so. [Type *Trimytis abnormis* Horn].....**Chilometopon**

All of these genera have the eyes very coarsely faceted, the epistoma greatly prolonged, subquadrate and clasped by the external ridge of the mandibles, the latter bifid at tip, the maxillary palpi well developed, with the last joint wider, elongate and obliquely truncate, the antennæ elongate and filiform, with the last three or four joints wider, the scutellum well developed, the elytra punctured in series, the tibiæ straight, the anterior with unevrerted external angles and the tarsi sparsely clothed beneath with stiff inclined spiniform hairs. One or possibly two of the genera described by Mr. Champion in the "Biologia," will enter this tribe, notably *Pescemius*, which Horn regards merely as a hairy *Trimytis*; it is however a widely distinct genus.

Trimytis Lec.

The species of this genus are rather short and compact in build, very convex, reminding us somewhat of *Steriphanus*, of the Eurymetoponini, and, as in that genus, the base of the prothorax may be either lobed or transversely rectilinear. The elytra are always margined at base, the scutellum transverse, broadly truncate and not projecting posteriorly behind the raised margin, differing in this way from the other two genera. *Trimytis* may be separated into two very distinct groups, which may be regarded at present as subgenera, as follows:—

Mandibles short, obtuse, not at all dentate above near or beyond the middle, folding under the labrum and clasping only the epistomal lobe, which is abruptly and squarely truncate at tip; prothorax transversely subrectilinear at base; tarsi rather short, the basal joint of the posterior distinctly longer than the fourth. [*Trimytis* in sp.].....2

Mandibles stout, with the apex abruptly narrowed and deflexed, each with a porrect dorsal tooth, moderate on the left, strong on the right, both clasping the labrum and lying against the epistoma when closed, the latter semicircular in form, with its edge finely pectinate in *pulverea*, angulate in *obtusa*; prothorax of the same general form but distinctly lobed at base; tarsi short, the basal joint of the posterior subequal to the fourth. [*Pimalius* n. subg. — type *pulverea* Horn].....6

2 — Epistoma minutely and sparsely punctate. Body very stout, highly polished, deep black, the under surface picescent, the legs

dark piceo-rufous; head transverse, the occiput rather finely punctato-strigose but only near the base at the middle, more completely and obliquely rugulose toward the eyes, the vertex very minutely, sparsely punctulate and polished; prothorax nearly three-fourths wider than long, the apex evidently narrower than the base, both subtruncate, the former however with the angles acute and anteriorly prominent, the basal angles slightly acute and distinctly, posteriorly produced, the sides feebly and subevenly arcuate; disk widest at base, the punctures uneven, large and small intermingled, generally moderate in size and very sparse medially, without impunctate line, gradually very coarse and close laterally, becoming confluent only very near the sides; elytra scarcely two and one-half times as long as the prothorax, and, behind the middle, slightly wider, the sides slightly arcuate, the apex very obtusely subparabolic, the punctures very coarse, close-set in slightly impressed series, becoming obsolescent at apical third, the intervals subconvex, finely, sparsely and confusedly punctate; abdomen finely, sparsely punctate medially. Length 6.0 mm.; width 3.0 mm. Texas (Marfa).....**nympha** n. sp.

Epistoma finely but more strongly and densely punctate.....3

3 — Apical angles of the prothorax very broadly produced anteriorly; elytral punctures very coarse, the series somewhat impressed.....4

Apical angles very abruptly produced anteriorly; elytral punctures much smaller, the series unimpressed, the intervals flat.....5

4 — Form rather elongate, strongly convex as usual, black, the under surface and legs dark-rufous, polished; head nearly as in *nympha* but with the punctured strigæ stronger and more wide-spread, the vertex finely, sparsely punctate at the middle anteriorly; prothorax two-thirds wider than long, widest at the base, the apex much narrower, truncate except toward the advanced acute angles, the basal angles right and evidently produced posteriorly; sides subevenly and moderately arcuate, becoming a little more converging and slightly sinuate near the apex, the surface subevenly but rather coarsely, moderately closely punctate, without impunctate line, the punctures rapidly still coarser, dense and longitudinally confluent in about lateral sixth; elytra two and three-fourths times as long as the prothorax, and, at the middle, slightly wider, the sides broadly arcuate, the apex somewhat gradually but obtusely ogival, the very coarse and moderately close-set serial punctures becoming obsolescent at apical two-fifths; abdomen finely, sparsely punctate medially, the basal segment coarsely so throughout. Length 5.5–6.7 mm.; width 2.65–3.0 mm. Colorado and New Mexico.....**pruinosa** Lec.

Form much stouter and decidedly piceous in color, the elytra frequently dull rufous, the under surface and legs paler rufous, shining; head similarly rather coarsely punctato-strigose; prothorax three-fourths wider than long, the apex and base as in *pruinosa* but with the basal angles much less distinctly produced posteriorly, the sides

parallel and nearly straight from the base to beyond the middle, where they are broadly rounded, thence converging and feebly sinuate to the prominent apical angles as in *pruinosa*, the punctation still coarser, moderately close and more uneven, with fewer coarse punctures intermingled, without impunctate line, becoming abruptly not much coarser but very dense and confluent only in about lateral eighth of the width; elytra nearly as in *pruinosa* but less elongate, with the interstitial punctures small, sparse and similarly confused, the serial punctures very coarse, except in apical two-fifths; abdomen feebly rugulose, finely but more strongly, sparsely punctured medially, the basal segment very coarsely so throughout. Length 5.2-6.1 mm.; width 2.4-3.0 mm. Colorado..... **tonsa** n. sp.

- 5— Body rather broadly oval, moderately convex, shining, piceous, the elytra and under surface rufescent, the legs dark piceo-rufous; head nearly as in *pruinosa* but less strigose, especially toward the middle of the occiput; prothorax fully two-thirds wider than long, the sides feebly arcuate, becoming parallel from behind the middle to the base, converging and becoming subsinuate to the very acute apical angles, the basal angles right, slightly prominent posteriorly, the apex much narrower than the base, the latter very feebly sinuate toward the sides; punctures rather large, very deep, even in size and distribution and separated by about twice their own diameters, with a narrow and distinct median impunctate line, very gradually becoming only slightly larger but dense though not perfectly coalescent laterally; elytra in form nearly as in *tonsa* but with the punctures of the unimpressed series only moderately coarse and well separated, becoming subobsolete in apical two-fifths; abdomen feebly rugulose, finely, sparsely punctate medially, the basal segment throughout sparsely and not very coarsely punctate. Length 5.0 mm.; width 2.3 mm. Colorado...**ignava** n. sp.
- 6— Form oblong-oval, strongly convex, strongly alutaceous in lustre, piceous-black, the legs rufous; head but little wider than long, somewhat coarsely, extremely densely punctato-strigose throughout, except in a very small triangular spot just behind the epistoma, which is simply punctate; prothorax transverse, nearly four-fifths wider than long, the apex but little narrower than the base and evenly, moderately sinuate from angle to angle, the latter only slightly acute and not prominent, the base broadly lobed in the middle, thence transverse and subrectilinear to the angles, which are slightly obtuse, the sides feebly arcuate; disk slightly wider at basal third than at base, very coarsely, deeply and closely punctured throughout, the punctures becoming longitudinally confluent laterally but scarcely at all larger, without suspicion of a median impunctate line; elytra scarcely a third longer than wide, two and one-half times as long as the prothorax and scarcely visibly wider, with feebly impressed series of coarse, deep and not very close-set punctures, extending to the apex and not abbreviated as in the preceding species, the intervals very minutely,

sparsely and confusedly punctulate; abdomen rather coarsely and closely punctured throughout, the metasternum extremely coarsely. Length 5.0 mm.; width 2.3 mm. Arizona**pulverea** Horn

Form oblong, piceous-black, moderately shining, the antennæ pale, the legs brownish; head densely and somewhat strigosely punctate, the epistomal lobe obtusely triangular; prothorax at the middle about twice as wide as long, the sides regularly arcuate, the base and apex nearly equal, with the angles obtuse; disk moderately coarsely and closely punctate, somewhat strigose at the sides; elytra at base slightly wider than the prothorax, with striae of fine punctures not closely placed, the intervals irregularly, biserially punctate, the punctures of the striae and intervals confused behind the scutellum; sterna very coarsely punctured, the propleuræ strigose; abdomen moderately coarsely, not closely punctured. Length 4.0-4.5 mm. Lower California (Sierra Laguna).....**obtusa** Horn

Although Dr. Horn has not described the mandibles or the form of the prothoracic base in *obtusa*, which is unknown to me, I believe, from the general nature of its characters, that it is to be associated with *pulverea* in the subgenus *Pimalius*. The very radical difference in the mandibles seems to indicate that *Pimalius* really ought to have generic rank, but because of its general resemblance to the normal *Trimytis*, I leave it with the indicated status for the present. Of the two Mexican species described by Mr. Champion in the "Biologia," *obovata*, from Chihuahua, is evidently an associate of *pruinosa* and a normal member of *Trimytis*, but *flohri*, from the vicinity of the City of Mexico, because of its prominent and scarcely emarginate eyes, must inevitably form another genus, for which I would propose the name **Tlascalinus** (n. gen.); it may take its place immediately after *Trimytis* in the above table.

Prometopion n. gen.

This genus in its general form and habitus, constitutes a satisfactory transition from *Trimytis* to *Chilometopon*. The hind wings appear to be rather well developed, but, from the heavier form of the body, the flight is probably more laborious than in the lighter and more slender *Chilometopon*. The mandibles are thick and heavy, with a broad smooth external ridge above, clasping the epistoma as in *Trimytis*, but the apex is broad and very obtuse, feebly bifid, the upper lobe very wide

and transversely truncate, the lower small and more pointed. The epistomal lobe is squarely truncate, with converging sides. The eyes are large, prominent, subentire and coarsely faceted, with the supra-orbital carina much finer and feebler than usual, the prothorax narrower than the elytra, the latter having the humeri exposed at base, and the basal joint of the hind tarsi is unusually elongate, being four-fifths as long as the entire remainder. The legs are rather long and slender. The two species known thus far may be outlined as follows:—

Form oblong-oval, shining, castaneous; head broadly oval, the mandibles and clypeus coarsely and densely punctured, the vertex and occiput much more sparsely; prothorax nearly twice as wide as long, the apex feebly emarginate, the anterior angles acute and very slightly everted, the base broadly rounded at the middle, feebly sinuate at each side, the hind angles subacute but not prominent, the sides moderately arcuate and slightly divergent to base; elytra slightly broader at base than the prothorax, elongate-oval, the sides moderately arcuate, the humeri distinct, the surface moderately convex, sparsely punctured, the punctures feebly seriate arranged, becoming slightly muricate and dense at the sides and apex; epipleuræ entire; mesosternum coarsely and densely punctured; metasternum moderately long at middle, very sparsely punctured, the sides and parapleuræ very densely; abdomen sparsely punctured, the femora coarsely but sparsely. Length 6.5 mm. California.....helopioides Horn

Form elongate-oval, strongly convex and shining, black or piceous-black, the under surface and legs more or less dark piceo-rufous; head rounded, nearly as long as wide, not coarsely but strongly, moderately closely and evenly punctate, the punctures somewhat elongate, finer but scarcely sparser on the occiput; antennæ nearly two-fifths as long as the body; prothorax three-fourths wider than long, the apex and base equal in width, the former evenly sinuate between the finely acute and anteriorly prominent angles, the latter lobed in the middle and thence feebly sinuate to the angles, which are obtuse but not at all rounded, the sides broadly and moderately arcuate at the middle, converging and straighter toward base and apex, not sinuate behind the apical angles which are not everted; disk widest at the middle, with rather small and sparse punctures, becoming somewhat rapidly coarse and very dense but scarcely at all confluent in lateral fifth or less, the surface feebly impressed before the basal lobe and with a fine and very short impressed longitudinal line near the basal margin; scutellum well developed, flat, nearly as long as wide, evenly and circularly rounded behind and projecting behind the basal margin; elytra elongate-oval, between three and four times as long as the prothorax, and, somewhat behind the middle, fully a third wider, the sides broadly

arcuate, the apex rather gradually ogival, the punctures somewhat fine, sparse, uniform in size, for the most part confused but with poorly defined series evident under close examination; metasternum and parapleuræ throughout only moderately coarsely, though strongly and sparsely punctate, the abdomen minutely and sparsely so, only slightly less finely toward the sides. Length 7.0-7.7 mm.; width 3.2-3.35 mm. Texas (near El Paso).

amplipenne n. sp.

The description of *helopioides* is taken from the original diagnosis of Horn, and there seems to be but little room to doubt the specific distinctness of *amplipenne*, in view of the differences in the form of the anterior angles of the prothorax, punctuation of the head and sterna, coloration and habitat.

Chilometopon Horn.

In this genus, which is characterized by a smaller and slighter form of body, the mandibles differ greatly from those of *Pro-metopion*, being less stout, with a fine external dorsal ridge dentiformly swollen at base and similarly clasping the epistomal lobe, which has the sides more converging and the apex more rounded. The apex of the mandibles is much narrower and is deeply bifid, the two lobes differing but little in size and both acutely pointed. It further differs in the form of the prothorax and in the elongate terminal joint of the antennæ. The scutellum is similar though more subquadrate, rounded behind and entering sensibly between the elytra. The eyes are similarly large, prominent and very feebly emarginate, and the supra-orbital carina is fine but distinct; the tarsal claws are similarly long and arcuate. We have apparently five species, which may be distinguished as follows:—

Basal joint of the hind tarsi very elongate, equal to the last two combined; epistomal lobe rounded.....2

Basal joint but little longer than the fourth, the epistomal lobe abruptly arcuato-truncate4

2 — Head rather coarsely and densely punctured. Body chestnut-brown in color, subopaque, last antennal joint as long as the two preceding together; prothorax broader than long, narrower at base than at apex and narrower than the base of the elytra, the disk moderately convex, coarsely and moderately densely punctured, especially toward the margins, the apex feebly emarginate, the base slightly sinuate [bisinuate], the sides rounded in front,

gradually narrowed [converging] to the hind angles, which are rectangular; elytra elongate-oval, subparallel in front, moderately convex, with striæ of finely muricate punctures, confused at base and less distinct at apex; under surface coarsely but not densely punctured, the abdomen paler, more shining and scarcely at all punctured. Length 6.5 mm. Nevada.....**abnorme** Horn

Head rather finely and not densely punctured.....3

3— Form elongate, moderately convex, shining, pale and uniform castaneous in color throughout; head as long as wide, very convex anteriorly, the epistoma sloping anteriorly from the elevation, the punctures small, well separated, elongate in form and streaming obliquely outward from the median line anteriorly, forming fine longitudinal folds toward the strong supra-orbital carinæ; last antennal joint (♀) scarcely as long as the two preceding combined; prothorax small, nearly three-fourths wider than long, widest at apical third, where the sides are strongly rounded, thence converging and straight to the basal angles, which are obtuse but not at all rounded, converging and arcuate to the acute and anteriorly prominent apical angles, the apex broadly, evenly sinuate, equal in width to the base, which is strongly and rather narrowly lobed in the middle; punctures very slightly elongate, sparse and moderately small, becoming gradually close-set and coarse but scarcely confluent laterally, with an incomplete impunctate median line; scutellum as long as wide, ogival at tip, narrowed somewhat at base; elytra nearly three-fourths longer than wide, four times as long as the prothorax, and, at the middle, one-half wider, the sides broadly arcuate, the apex gradually acutely ogival, the humeri broadly exposed at base, rounded, the punctures fine, sparse, shallow, scarcely muricate, subequal in size, confused toward the suture, forming approximate series outwardly continuous from base to apex; metasternum sparsely, moderately coarsely and muricately punctate, the abdomen not evidently punctate medially. Length 6.4 mm.; width 2.38 mm. California (Barstow).....**castaneum** n. sp.

Form shorter and stouter, convex, somewhat alutaceous, dark piccorufous, the elytra blackish, the legs paler rufous; head slightly wider than long, nearly as in *castaneum* but feebly impressed along the median line and without the pronounced convexity involving the apex of the front and base of the epistoma, the last antennal joint in the type but little more than one-half longer than the tenth; prothorax nearly similar but less transverse and more broadly rounded at the sides, about one-half wider than long, the apex more feebly sinuate, with the angles less anteriorly produced and the basal lobe broader, the punctures nearly similar but less sparse medially and without a median impunctate line, the latter however apparently very feebly elevated behind the middle and with a fine stria near the base; scutellum subsimilar; elytra much shorter, distinctly inflated behind the middle, one-half

longer than wide, three and one-half times as long as the prothorax, and, at apical two-fifths, about one-half wider, the sides broadly arcuate, the apex more rapidly and obtusely ogival, the humeri and punctuation similar, the punctures fine and very shallow; metasternum similar, polished, the abdomen subopaque, minutely, sparsely punctate medially. Length 5.4 mm.; width 2.4 mm. Utah (Leeds).—H. F. Wickham.....*brevipenne* n. sp.

Form much more slender, rather pale and uniform testaceous throughout, shining; head nearly as in *brevipenne* but as long as wide, finely, very sparsely punctured medially and without the impressed line, the antennæ (♂) more than half as long as the body, with the last joint ensiform and as long as the preceding five joints combined; prothorax small, nearly three-fourths wider than long, formed nearly as in *brevipenne* but with the apex perceptibly wider than the base, similarly broadly sinuate but with the angles decidedly blunt and not acute, the basal angles obtuse but minutely prominent, the sculpture almost as in *castaneum* though rather coarser and with a more irregular impunctate median line; scutellum similar; elytra nearly as in *castaneum*, much narrower and more acute at tip than in *brevipenne*, four times as long as the prothorax, and, at the middle, one-half wider, the sides parallel and evenly arcuate, the humeri broadly rounded, widely exposed at base, the punctures fine, shallow but unusually muricate, close-set in entire series, the intervals irregularly uni- or biserially and subsimilarly punctate as usual; the surface becomes more polished and the serial punctures coarser on the vertical flanks toward base. Length 5.0 mm.; width 2.0 mm. Nevada (Hawthorne), —H. F. Wickham.....*ensifer* n. sp.

4 — Body rather stout, convex, shining, pale yellowish-testaceous throughout; head about as long as wide, rather coarsely, sparsely and simply punctate posteriorly, the punctures smaller, dense and obliquely strigose anteriorly, small, separated and simple on the epistoma, the supra-ocular carinæ strong; mentum minutely, sparsely punctate; antennæ long and slender, the last joint as long as the two preceding combined and bristling with short erect setæ (♂), or much shorter and only about a third longer than the tenth (♀); prothorax nearly two-thirds wider than long, widest at apical two-fifths, where the sides are narrowly and subprominently rounded, thence converging and straight to the rectangular and slightly everted basal angles, less converging and straight to the acute and anteriorly prominent apical angles, the apex broadly subtruncate between the advanced angles and about as wide as the base, which is broadly lobed at the middle, the punctures rather coarse, sparsely scattered rather narrowly along the middle, thence gradually denser and coarser but not confluent to the sides; scutellum fully as long as wide, acutely rounded, constricted at base; elytra nearly as in *castaneum*, much broader and relatively shorter in the female than in the male, the punctures rather small, shallow, feebly muricate, close-set in subentire and unimpressed series, the inter-

vals with a single uneven series of rather smaller, more widely spaced punctures; abdomen finely but distinctly, not very sparsely punctured medially. Length 6.3-7.0 mm.; width 2.4-2.85 mm. Texas (near El Paso).....*pallidum* Csy.

As tending to show the propriety of associating the genera from *Trimytis* to *Chilomctopon*, to form a natural tribe, it may be noted that the anterior angles of the prothorax bear vibrissæ, particularly long and conspicuous in *Chilomctopon* and *Prometopion*, but shorter and less evident in *Trimytis*, though so distinct in *Trimytis obovata* as to have been especially mentioned by Mr. Champion, and, as further tending to show the intimate relationship of the Trimytini and Eurymetoponini, attention may be drawn not only to the similarity of general habitus, but to the singular short longitudinal impression on the lower part of the elytral flanks before the middle, so prevalent in both tribes, becoming obsolete only in *Trimytis* and a few subapterous Eurymetoponids, and evidently correlated in some obscure way with the winged condition, in common with the transverse antecoxal grooves. It is interesting, in view of his subsequent change of opinion, that Dr. Horn should have associated *abnorme* originally with *Trimytis*, and in fact described it as a species of that genus. He afterwards very properly founded for it a special genus, but for some very inadequate reasons referred it to the Epitragini, where it is wholly out of place, as shown by the structure of the mentum, as well as by its general habitus. His first impulse in this case was the correct one.

If the language used in describing the punctuation of the head in *abnorme* is at all correct, it differs a good deal from the next three species of the table, but, in any event, as the species are known to be moderately numerous and are unquestionably all very local in habitat, there can be but slight risk of synonymy in the above interpretation of the species; the description of *abnorme* is drawn from the original diagnosis. The enormously elongated terminal joint of the antennæ in *ensifer*, which is founded upon a unique male, raises the question of sexual differences. *Pallidum* is the only species in which both sexes are represented before me, and here the sexual differences in general form of the body and particularly in the development of the

last antennal joint are very pronounced. *Abnorme*, *castaneum* and *brevipenne* are probably represented at present by unique females, and the inference is that in the *abnorme* group of the above table, the last antennal joint is very abnormally developed in both sexes, though especially in the male, while in the *pallidum* group, these departures from the normal are not so pronounced, or, in other words, it is presumable that the last antennal joint of the female in the first group is about as elongated as in the male of the second. In the genus *Prometopion* this abnormality in the terminal joint does not exist at all, as far as we know.

Tribe TRIENTOMINI.

A single genus, containing a moderate number of species, confined to the fauna of the Caribbean regions, alone constitutes this tribe so far as now known. Two Mexican species of *Trientoma* were described by Mr. Champion in the "Biologia," but in the appendix of the volume, were considered by that author to have been wrongly labeled and in reality collected in San Domingo. The tribe is a very satisfactory link between the previous tribal groups and the Gnathosiini, and is the only one of the subfamily, except the Epitragini and several with small mentum, occurring in the Caribbean fauna. The genus may be described as follows:—

Body oval, compact, glabrous, wingless, the epistoma strongly produced, narrowed toward base, abruptly and transversely truncate, the mandibles very thick, with a basal swelling fitting into the reëntrant sinus at the base of the epistoma and each with a very thick, strong, obtuse tooth, that of the right slightly the larger and both fitting closely to the epistomal apex when closed, the mandibular apices rapidly though slightly deflexed and feebly bifid at tip; mentum transverse, hexagonal, with the apex feebly sinuate; antennæ rather thick but cylindric, subglabrous, with the outer three joints slightly wider, the eleventh short and obtuse; eyes moderately developed, coarsely faceted, rather prominent and but feebly emarginate anteriorly; prothorax closely fitted to the elytra and as wide at base as the base of the latter; scutellum very minute; elytra finely margined at base, with serial punctures; tibiæ short, broadening from base to apex, the external angle of the anterior not prolonged; tarsi short, thick, the basal joint of the posterior almost as long as the entire remainder; intercoxal process of the abdomen obtuse; metasternum slightly shorter than the first ventral segment..... *Trientoma*

At present this genus is confined entirely to islands between North and South America, but it is probable that it will ultimately be found also in southern Florida.

Trientoma Sol.

The described species are some seven or eight in number; the following appears to differ from any known to me in the books:—

Body stout, evenly elliptical, moderately convex, deep black, the legs scarcely picescent, densely opaque, the surface with extremely minute but strong reticulation, smooth; head wider than long, the supra-orbital carinæ at some distance from the eyes, the surface longitudinally, unevenly and closely strigato-plicate, the carinules converging toward the reëntrant arcs between the epistoma and obliquely rounded sides of the front, extremely minutely, sparsely punctulate throughout; antennæ not extending to the base of the prothorax, the third joint as long as the next two combined, the surface sparsely clothed with inclined yellow setæ; prothorax about half as long as its basal width, the sides converging and feebly, subevenly arcuate from the rather acute and posteriorly subprominent basal angles to the slightly acute but blunt and anteriorly prominent apical angles, the apex three-fourths as wide as the base, deeply and evenly sinuate; base transverse, with a very short broad arcuato-truncate median lobe separated from the general surface by an entire transverse furrow; disk impunctate, extremely minutely and rather sparsely so toward the sides; scutellum narrow, pointed; elytra scarcely a third longer than wide, two and one-half times as long as the prothorax, and, before the middle, very little wider, the sides evenly and broadly arcuate, gradually arcuate and converging in apical half to the acutely ogival apex, the punctures small but distinct, rather coarse laterally, widely spaced in very feebly impressed series which extend to the apex, the interspaces impunctate under a hand lens, the marginal stria deep; abdomen more shining, sparsely, excessively minutely, the basal segment rather less minutely, punctulate, wholly impunctate toward the sides. Length 7.7 mm.; width 3.7 mm. Bahama Islands (Egg Island), — H. F. Wickham.

wickhami n. sp.

The abdomen at base being perceptibly punctate medially but wholly impunctate laterally, contrasts much with any form of the *Eurymetoponini*, these all having the lateral punctures much coarser than the medial. This is a very interesting discovery by Mr. Wickham and I take pleasure in dedicating the species to him.

Tribe EPITRAGINI.

This extensive tribe is peculiarly North American, although plentifully represented in South America also. It is very clearly delimited from all the other tribes by the form of the mentum, which is transversely parallelogrammic, with the anterior edge broadly, moderately and, as a rule, evenly arcuate. The epistoma is lobed in the middle and the mandibles truncate at tip, the only exceptions known to me being *Epitragus* itself and *Hemasodes*, the former of which is more essentially South American, the epistoma in those genera being emarginate and the mandibles apically bifid, rendering them the most isolated groups of the tribe. The body is in general fully alate, but there are some genera, such as *Conæcus*, which appear to have vestigial wings. The hind body is usually inflated and gradually very acutely pointed behind, and the basal margin of the elytra frequently becomes obsolescent or wanting, but the scutellum is always well developed. The elytral punctures are usually confused or more or less imperfectly serial, although broadly impressed longitudinal lines are frequently evident. The genera known to me may be briefly defined as follows:—

- Epistoma broadly emarginate in even circular arc; mandibles bifid at tip2
- Epistoma lobed; mandibles transversely truncate at tip, folding beneath the labrum, the right usually with a dorsal tooth clasping the labrum, the left generally without dorsal tooth3
- 2 — Prosternum posteriorly produced, acute at tip and closely received within a large deep mesosternal excavation. South America and eastern Central America. [Type *E. fuscus* Latr.]...* **Epitragus**
- Prosternum only slightly produced posteriorly, flattened but obtusely rounded at tip and not quite attaining the mesosternum, which is not excavated; tarsi with pubescent pads beneath, the posterior with the pads very small and apical only, the first joint longer than the fourth. Mexico. [Type *Schænicus vestitus* Champ.]
* **Hemasodes**
- 3 — Prosternum horizontally produced posteriorly, the tip received within a large deep mesosternal excavation; eyes large but not prominent, generally finely faceted and but feebly emarginate anteriorly4
- Prosternum slightly produced posteriorly and subhorizontal but not attaining the mesosternum, which is at most feebly or moderately impressed.11

- Prosternum rapidly deflexed behind the coxæ, conforming with the prevailing type of structure in the subfamily, the mesosternum normal or but feebly impressed..... 12
- 4 — Tarsi with dense pads of fine pale pubescence beneath..... 5
- Tarsi with sparser short, stiff, spiniform setæ beneath, the posterior, at least, devoid of denser and finer pubescence..... 10
- 5 — Pronotum not modified sexually¹..... 6
- Pronotum remarkably modified in the female; body stout, very obtusely rounded behind..... 9
- 6 — Head with strong supra-orbital ridges..... 7
- Head with very feeble or obsolete supra-orbital carinæ..... 8
- 7 — Body very elongate and acutely pointed behind; lateral lobes of head obliquely prominent; prothorax subtruncate at tip, with the angles obtuse and rounded; basal joint of the hind tarsi fully as long as the fourth. [Type *Epitragus submetallicus* Lec.]

Polemiotus

- Body very stout, extremely convex longitudinally above, obtuse behind, the lateral lobes of the head not obliquely prominent, the prothorax sinuate at tip, with acute and anteriorly prominent angles; basal joint of the hind tarsi evidently shorter than the fourth. [Type *C. cavicauda* n. sp.] * **Cyrtomius**
- 8 — Body more or less narrow, elongate-oval, acutely pointed behind and moderately convex axially above, the frontal lobes not obliquely prominent except sometimes in the subgenus *Epitragopsis*, the prothorax narrowed and sinuate anteriorly, with the angles more or less acute and anteriorly prominent; basal joint of the hind tarsi shorter than the fourth. [Type *Epitragus fusiformis* Csy.] **Lobometopon**
- 9 — Supra-orbital carinæ more or less fine, sometimes nearly obsolete as in the preceding genus; prothorax narrowed anteriorly, sinuate and with acute and anteriorly prominent angles; basal joint of the hind tarsi evidently longer than the fourth. [Type *Epitragus canaliculatus* Say]..... **Bothrotus**
- 10 — Supra-orbital ridges strong, the eyes rather coarsely faceted; body nearly as in *Lobometopon*, but with the basal joint of the hind tarsi at least equal in length to the fourth and generally decidedly longer; sculpture usually coarse and sparse, the surface polished. [Type *Epitragus pruinosus* Horn]..... **Metopoloba**
- Supra-orbital carinæ apparently wholly obsolete; eyes very minutely faceted; body shorter, stout, broadly oval; basal joint of the hind tarsi evidently shorter than the fourth. [Type *P. subvittatus* n. sp.] **Pechalius**

¹ See note under *Lobometopon*.

- 11 — Body stout and broadly oval as in *Pechalius*, the supra-orbital carinae similarly obsolete and the surface hairy, the eyes more convex and much less finely faceted, though less coarsely than in *Metopoloba*, the prothorax narrowed and sinuate anteriorly and posteriorly, generally widest at about the middle, with the usual well defined angles; basal joint of the hind tarsi equal in length to the fourth. [Type *Epitragus tomentosus* Lec.]...**Epitragodes**
- 12 — Anterior tibiae not abruptly dilated..... 13
 Anterior tibiae abruptly dilated within from behind the middle to the apex.....17
- 13 — Eyes minutely faceted, large but only very feebly convex, subentire as usual, the supra-orbital carinae very fine or subobsolete; prothorax narrowed and more or less sinuate anteriorly, the angles but slightly advancing; tarsi somewhat variable. [Type *Epitragodes jülichii* Csy.].....**Phegoneus**
- Eyes coarsely faceted, without supra-orbital carinae.....14
- 14 — Eyes very convex and prominent.....15
 Eyes feebly convex and not prominent.....16
- 15 — Body elongate-suboval; prothorax widest medially, narrowed to the sinuato-truncate apex, the angles obtuse; anterior and middle tarsi with dense pubescent tufts beneath, the posterior merely with a few short spiniform hairs, the basal joint rather longer than the last; eyes but slightly transversely oval, very minutely, feebly emarginate anteriorly; elytra without evident punctured series. [Type *S. puberulus* Lec.]...**Schœnicus**
- Body subparallel, the prothorax subquadrate, narrowed but feebly at apex and widest near the middle, the apex truncate; elytra with even series of punctures distinct to the apex. [Type *Schœnicus oculatus* Champ.].....***Ortheolus**
- 16 — Body rather broadly oval, wingless or with vestigial wings, the prothorax strongly rounded at the sides, subequally narrowed at apex and base, with the apical angles very obtuse; elytra without series or with very imperfect serial arrangement of the punctures; anterior tibiae obtusely prolonged externally at tip; all the tarsi with dense silvery-pubescent pads beneath, the basal joint of the posterior much shorter than the fourth. [Type *C. ovipennis* Horn].....**Conœcus**
- 17 — Body suboval, wingless or with vestigial wings, the prothorax strongly rounded at the sides, subequally narrowed at apex and base and widest at the middle; elytra short as in *Conœcus* and with the punctures confused or very imperfectly lineate in arrangement. [Type *T. atratus* Champ.].....***Tydeolus**

Several of the genera in this table, as indicated by asterisks, do not occur in the American fauna and will not in general be

alluded to further in more than an incidental way. *Epitragus*, for example, only extends slightly into Central America from its proper habitat, which is South America.¹ *Hemasodes* (n. gen.), is founded upon the remarkably isolated *Schwenicus vestitus*, of Champion. *Orthocolus* (n. gen.), is represented at present only by the neotropical *Schwenicus oculatus*, of Champion, while *Tydecolus* Champ., is represented by three rather rare Mexican species, apparently having a good deal the facies of *Conacus* and probably at least subapterous.

Polemiotus n. gen.

In its strong supra-orbital ridges, prominent and somewhat everted lateral lobes of the front, anteriorly subtruncate prothorax, with rounded angles and elongate body, with widely exposed and rounded humeri, this genus is one of the more distinct of the tribe. The eyes are large and transversely oval, feebly emarginate anteriorly by the rather thick canthus, somewhat prominent and only relatively coarsely faceted, the supra-orbital ridges bounded internally by deep coarse excavations, somewhat as in *Metopoloba*, where the eyes are almost similarly coarsely faceted but less convex. The anterior tibiæ are slender

¹The following Central American *Epitragus* has been hitherto uncharacterized:—

Elongately fusiform, convex, polished, pale red-brown, the upper surface with scattered recumbent yellow hairs, closer toward the eyes and sides of the pronotum and tending to form denser clusters on the elytra; head rather coarsely punctured, the punctures separated by about twice their diameters medially; prothorax a third wider than long, the sides evenly and moderately arcuate, slightly more so at tip, becoming subparallel in nearly basal half, the basal angles right, not rounded; apex more than three-fourths as wide as the base, the punctures close and small laterally, large and sparse medially, without well defined impunctate line except in basal half, the surface at each side with a large elongate-suboval impression basally at lateral fourth and a transverse feebler impression before the basal lobe, separated from the lateral impressions by a very feeble convexity; elytra three times as long as the prothorax, at base a fifth or sixth wider, the sides broadly arcuate, the tip acute, the humeri rounded; surface with wholly unimpressed series of rather coarse, widely spaced punctures, the intervals with smaller confused punctures, sparse with aggregated denser patches, the entire surface rugose. Length 11.0 mm.; width 4.15 mm. Honduras..... * *rigens* n. sp.

I formerly regarded this as *sallii* Champ., but it differs greatly in its unimpressed elytral series and is undoubtedly specifically different.

and straight, with the outer angle at apex minutely and acutely subprominent and the mandibles are densely punctate, with the apical part abruptly impunctate and polished. We appear to have two or three distinct forms which may be described as follows:—

Form elongate-oval, convex, shining, piceous to blackish, with a feeble æneous lustre, the legs concolorous, the antennæ dark rufous, the upper surface with rather long prostrate yellow hairs, evenly distributed but not dense; head quadrate, transversely convex between the intra-ocular excavations, sparsely and rather coarsely punctate, more finely and closely anteriorly and on the epistoma; prothorax but little over a fourth wider than long, the sides straight and feebly converging from the subrectangular and slightly blunt basal angles about to apical third, then more rounding to the apex, the latter truncate and only slightly narrower than the base, the punctures coarse and rather close-set laterally, gradually small and sparse broadly in the middle, the basal lobe strongly rounded; scutellum ogival, nearly as long as wide; elytra twice as long as wide, four times as long as the prothorax, and, at the middle, not quite twice as wide, the sides broadly arcuate, the apex acute, the humeri widely exposed basally and broadly rounded, the punctures slightly coarse and confusedly lineate in very feebly impressed lines, the intervals minutely, sparsely and confusedly punctate; abdomen finely, closely punctulate and pubescent, less shining. Length 13.0–15.0 mm.; width 5.0–5.75 mm. (♂, ♀). Arizona (Baboquivari Mts.)...**submetallicus** Lec.

Form similar, shining, dark piceo-rufous with a very feeble coppery lustre, the legs concolorous, similarly though still less closely pubescent; head nearly similar but more finely and sparsely punctate; prothorax relatively larger, nearly a third wider than long, the sinuato-truncate apex but little narrower than the base, the sides very feebly converging and just visibly, subevenly arcuate from the evident basal angles to the rounded apical angles, slightly more arcuate very near the latter, the surface very broadly and feebly impressed before each of the strong basal sinuations, rather finely, sparsely punctured laterally, extremely finely and remotely so medially; elytra more than twice as long as wide, four times as long as the prothorax, and, at the middle, about three-fourths wider, the sides broadly arcuate, the tip very gradually acute, the humeri widely exposed at base and broadly rounded, with the callus pronounced, very elongate and gradually disappearing posteriorly, the punctures moderately coarse, closely and confusedly aggregated in scarcely impressed striiform lines, the intervals sparsely, confusedly and very minutely punctate. Length 14.5 mm.; width 5.5 mm. (♂). Arizona (Santa Catalina Mts.).

humeralis n. sp.

Var. A — Body nearly similar in form and lustre but broader in the female type, dark rufo-piceous, polished but scarcely with metallic lustre; head nearly similar, the punctures very sparse; prothorax fully two-fifths wider than long, the sides rounding anteriorly, becoming parallel in about basal half, the surface not at all impressed at the basal sinuations, rather finely, sparsely punctured laterally, minutely and remotely toward the middle; elytra similar but more rapidly acuminate and pointed behind, with much more impressed lines of subconfused and rather coarser punctures, the intervals similarly finely punctulate, the humeral callus strong and rounded but more abbreviated. Length 15.5 mm.; width 5.9 mm. (♀). Arizona (Nogales), — H. F. Wickham *acuticauda* n. var.

The female of *acuticauda*, when compared with *submetallicus*, is rather broader, with a larger and more transverse prothorax, which is less coarsely and more sparsely punctate laterally, the elytral humeri rather less broadly rounded and with a larger, more pronounced callus, and the series more impressed. It is probably different specifically from either *submetallicus* or *humeralis*, but, because of lack of series of both sexes, I prefer to consider *acuticauda* as a variety for the present. The Mexican species described by Champion under the name *Epitragus grandis*, will enter the present genus without doubt.

Cyrtomius n. gen.

Besides the characters given in the table to distinguish this genus, its comparatively few members may be known at once by their very distinct facies, due to the obese form, strong convexity of the median part of the body and coarsely wrinkled integuments. Each elytron, in the species known to me, has a small strong protuberance on the disk at the apex, the tubercle being the posterior limit of the acute upper marginal line of the epipleuræ, which do not therefore quite attain the sutural angles. The scutellum is well developed, hairy and rather gradually pointed behind, and the elytra are rather deeply sinuate at the middle of the base, to receive the prominent rounded basal lobe of the prothorax. Three species may be described as follows:—

- Elytra very coarsely and irregularly rugose or wrinkled on the subvertical flanks and toward apex, the pubescence more densely aggregated in the depressed parts of the surface2
- Elytra not rugose but with patches of denser pubescence..... 3

2 — Body stout, oval, polished, with strong bronzy lustre, the legs black with strong metallic lustre, the antennæ somewhat piceous; pubescence yellowish, long and suberect anteriorly, dense on the head along the eyes and on the epistoma, rather sparse but very conspicuous on the pronotum, shorter and very unevenly distributed on the elytra and almost wanting on the upper convex parts of the surface; head nearly as long as wide, convex anteriorly (♀) or nearly flat (♂), coarsely and sparsely punctate, closely near the eyes, each lateral lobe isolated by a broad deep groove extending to the apical margin, the epistoma angulate, the eyes large, rather flat, minutely faceted; prothorax three-fourths wider than long, the apex not quite three-fourths as wide as the base, all the angles acute, the anterior very prominent anteriorly, the sides nearly straight, the punctures deep but rather fine, sparse, becoming less sparse but only a little larger near the sides, with an imperfect slightly elevated impunctate median line; elytra between three and four times as long as the prothorax and a third wider, the humeri broadly rounded to the prothorax, the sides feebly sinuate behind them, arcuately converging in apical third, the apex obtuse, the punctures minute and sparse, becoming but slightly larger, though closer and very uneven laterally, confused throughout; sutural region toward apex deeply concave; abdomen minutely punctate, sparsely so and glabrous medially, closely and hairy laterally. Length 12.8–13.8 mm.; width 6.2–6.45 mm. Mexico (Guerrero)..... * *cavicauda* n. sp.

Body stout, similar to the preceding in form, color and lustre but smaller and somewhat more densely clothed with long yellowish pubescence, shorter and more appressed on the elytra; head similar but with smaller lateral lobes and shorter antennal joints; prothorax similar but much more finely punctured toward the sides; elytra very finely and closely punctured laterally. Length 12.0 mm. Mexico (Almolonga)..... * *plicatus* Champ.

3 — Form elongate-oval, convex, dark æneous, the surface not coarsely and very sparsely punctured; prothorax broader than long, narrowed in front, feebly emarginate anteriorly, the sides feebly rounded from the base, the angles acute, the base strongly bisinuate; elytra with cinereous pubescence arranged in irregular patches, the apex apparently emarginate, the marginal line not extending to the apex but terminating in a small tooth near it, the base emarginate and with a faint impression within the humeri; under surface finely punctured and sparsely clothed with cinereous pubescence. Length 11.5–12.0 mm. Arizona (Camp Grant, — under mesquite bark)..... *dentiger* Horn

It is quite possible that *cavicauda*, which is represented before me by a good series, may be identical with the more southern and eastern *plicatus*, but the language used by Mr. Champion in regard to the epistoma and anterior angles of the prothorax

will certainly not apply to the angulate form of the first or the greatly produced acute form of the latter in *cavicauda*. The above short diagnosis of *plicatus* is taken from a specimen recently sent to me by Mr. Champion, from Almolonga. *Dentiger* seems to lose some of the convexity and practically all of the elytral rugosity of the Mexican species, but retains the elytral pubescence in denser patches, as a vestige of the characters developed so strikingly in the more typical forms of the genus. I have not seen it and the description is transcribed from the original. The female of *cavicauda* has the last dorsal segment very remarkably modified, as in the same sex in some forms of *Hylocrinus*, of the Eurymetoponini; this segment is black and densely chitinized, with a very deep median emargination, from the bottom of which projects a slender sagittiform process; in the male the last dorsal is coriaceous and pale as usual, narrow, with the apex truncate, the penultimate being more broadly arcuato-truncate and with a very small simple median sinus. There is no sexual difference in the modification of the elytral apices, this being one of the most important of the distinguishing generic characters. The Mexican *inaequalis*, of Champion, also belongs to *Cyrtomius*, without much doubt.

Lobometopon n. gen.

This genus is a large one and extends in range from Utah and Kansas, at least to the Isthmus of Panama and probably further, although replaced to a large extent by *Epitragus*, and some other allied genera, in South America. The species are evenly elongate-oval in form, evenly convex and either uniformly pubescent or glabrous, with the eyes large but flattened, finely faceted and with very feebly developed supra-orbital carinæ, the lateral lobes of the front never separated from the median parts by more than a feeble depression, the apical angles of the prothorax always anteriorly prominent and the elytra gradually acutely ogival toward apex. The upper line of the epipleuræ extends to the sutural angle, which is usually unmodified but sometimes feebly mucronate, apparently more especially in the female; the elytra sometimes have broadly and feebly impressed lines, particularly toward the suture, and, toward tip, two or

three of these grooves are generally a little stronger, but this is the only modification that I have noted, except a very minute truncature of the apical angles in a few species such as *godmani* Champ., and the sexes differ but little, as a rule, the female merely being a little stouter in form, with the anterior parts usually more closely punctured. In the following table I have included a few neotropical species which happen to be represented in my cabinet:—

Upper line of the epipleuræ attaining the acute sutural angles; anterior angles of the prothorax prominent and acute, elytra with confused sculpture at least laterally; eyes finely faceted. [<i>Lobometopon</i> in sp.].....	2
Upper line of the epipleuræ not attaining the sutural angles, the elytral apex conjointly narrowly truncate or feebly sinuate; anterior angles of the prothorax anteriorly prominent but blunt; elytra with confused sculpture; eyes finely faceted. [<i>Epitragoma</i> n. subg.]....	15
Upper line of the epipleuræ not quite attaining the sutural angles but terminating in a minute denticle near it, the apices individually minutely, obliquely truncate; elytra with even series of punctures which are not at all confused laterally; anterior thoracic angles acute but not very prominent; lateral lobes of the front more prominent, the eyes coarsely faceted. [<i>Epitragopsis</i> n. subg.]... 16	
2 — Body glabrous or with inconspicuous vestiture.....	3
Body with distinct pubescence.....	14
3 — Head without occipital depressions.....	4
Head with a marked impression at each side of the occiput near the eyes, at least in the female.....	13
4 — Pronotal punctures more or less fine and sparse medially.....	5
Pronotal punctures decidedly coarse throughout.....	10
5 — Anterior angles of the prothorax not much deflexed.....	6
Anterior angles greatly deflexed, almost as in <i>ovalis</i>	9
6 — Pronotum without an impunctate median line or with this line narrow and very imperfect.....	7
Pronotum with a distinct impunctate median line.....	8
7 — Form narrowly fusoid, moderately convex, highly polished with strong æneous lustre, the pubescence very short and sparse, inconspicuous though easily observed; head rather coarsely, sparsely punctate, more closely toward the eyes and anteriorly; prothorax only about a third wider than long, moderately narrowed from the acute and prominent basal angles to the acute and strongly anteriorly prominent apical angles, the sides very feebly arcuate, generally becoming slightly sinuate near both angles, the surface very minutely and sparsely punctate, becoming somewhat coarsely but still sparsely so laterally, with a feeble elongate-oval impres-	

sion before the scutellum, the latter wider than long and very obtusely ogival; elytra elongate, very gradually and acutely pointed behind, the angles acute but not mucronate, the humeri broadly rounded to the prothorax, the surface with a few feebly impressed lines suturally, very finely, sparsely punctured, less finely but not very closely laterally, the punctures confused but with some traces of slightly larger punctures, either in irregular single series or in longitudinal aggregated lines. Length 10.0-11.0 mm.; width 4.0-4.25 mm. Mexico (Guerrero)* **gracile** Csy.

Form elongate-ovoidal, moderately convex, deep black with scarcely any metallic lustre, rather shining, the pubescence very short, sparse and inconspicuous; head somewhat finely and sparsely punctate, the punctures coarser, dense and coalescent toward the orbital carinæ, which are fine but distinct, the epistoma ogivally rounded; prothorax about a third wider than long; the sides moderately converging from the base, broadly and rather strongly arcuate, becoming feebly sinuate near the basal and apical angles, the former slightly acute, sharp and feebly everted, the latter acute, slightly everted, prominent and with the tip only slightly blunt; surface feebly convex, somewhat flattened medially toward apex, where the anterior margin is just visibly elevated at each side of the flattened area, the punctures not very coarse but strong, impressed and moderately sparse medially, without trace of an impunctate line, becoming gradually decidedly coarse and close but not dense laterally; elytra elongate, nearly two-thirds longer than wide, very gradually ogivally acute posteriorly, about three times as long as the prothorax but barely a fifth wider, the sides arcuate, strongly and abruptly rounded at the humeri to the thoracic angles, the humeri somewhat exposed at base, the callus short but large and rather prominent, the punctures fine but strong, rather sparse, becoming but little larger and still well separated laterally, the impressed lines wholly obsolete; abdomen finely, rather closely punctulate medially. Length 10.0 mm.; width 4.15 mm. Mexico (Guadalajara), — Rolle.....* **aberrans** n. sp.

Form rather narrowly fusoid, convex, shining, black with very feeble bronzy lustre, the tarsi piceous, the pubescence extremely short and conspicuous; head rather coarsely, densely punctured, the antennæ rather stout, the tenth joint nearly twice as wide as long; prothorax rather short, almost one-half wider than long, strongly narrowed anteriorly, the apex about two-thirds as wide as the base, the sides evenly and notably arcuate, the basal angles very acute and minutely prominent, the apical acute and anteriorly prominent, the surface with a small and obsolescent impression on the basal lobe, strongly and much less finely, somewhat sparsely punctate, becoming gradually densely but not much more coarsely so laterally, with traces of an impunctate line anteriorly; scutellum transverse, broadly ogival, anteriorly declivous; elytra oval, much more obtusely ogival apically, the sides arcuate and the humeri broadly

rounding to the base of the prothorax, at the middle fully two-fifths wider than the prothorax, the punctures rather small and sparse but strong, becoming not much larger but close-set laterally, confused but with traces of slightly larger punctures in series, the sutural broadly impressed line distinct apically, the sutural angles acute but not mucronate; abdomen polished, rather finely but not very sparsely punctured medially. Length 9.0 mm.; width 4.0 mm. Utah (Marysvale),—H. F. Wickham.....**uintanum** n. sp.

- 8—Form elongate-oval, convex, shining, black, without metallic lustre except a feeble steel-blue tint on the pronotum, subglabrous; head moderately coarsely, perforately and closely punctate, the tenth antennal joint obtriangular, about a third wider than long; prothorax rather elongate, scarcely more than a fifth wider than long, the apex fully three-fourths as wide as the base, the sides very evenly and moderately arcuate throughout, the basal angles right, not at all prominent, the apical acute and anteriorly prominent, the surface strongly but rather sparsely punctured, becoming gradually somewhat coarsely, densely so laterally, with a narrow and subentire impunctate line, not impressed near the base; scutellum transverse, very obtusely ogival, convexly declivous anteriorly; elytra gradually but rather obtusely ogival in apical two-fifths, the sides becoming subsinuate behind the humeri, which are broadly rounded to the thoracic angles, at the middle fully two-fifths wider than the prothorax, the punctures not very coarse but strong, not larger but dense laterally, confused though with the feeblest traces of larger punctures aggregated into partial lines suturally, the sutural angles simple, acute; abdomen strongly and closely punctured medially and slightly shining, the basal segment more sparsely punctured. Length 11.0 mm.; width 4.5 mm. Arizona.....**fusiforme** Csy.

Form still more narrowly fusoid, naviculate, convex, polished, somewhat piceous-black, with very feeble bronzy lustre, the pubescence extremely short and very inconspicuous; head strongly but not very coarsely punctured, loosely so medially but densely and rugosely laterally, finely but strongly and closely apically, the epistoma angulate, with the angle slightly prominent; prothorax nearly as in *fusiforme* but with the broadly arcuate sides usually becoming slightly sinuate before the basal angles, which are somewhat acute and prominent, the apical acute and anteriorly prominent, the surface finely, rather sparsely punctured, becoming strongly but not very coarsely and closely though not densely so laterally, the punctures at the extreme edge decidedly smaller than at about lateral fourth or fifth; scutellum transversely ogival, declivous only at base; elytra gradually very acute in apical two-fifths, with only very feebly and rather finely impressed lines suturally, the sides arcuate, the humeri gradually rounding to the thoracic angles, at the middle about a third wider than the prothorax, the punctures decidedly coarse and very strong, rather well separated,

not larger but closer and shallower laterally, confused and with but the feeblest possible traces of disconnected series; abdomen polished, æneous, finely but strongly, sparsely punctured, more coarsely and closely so only very near the sides. Length 9.5-10.0 mm.; width 3.8-4.1 mm. Arizona, — Warren Knaus.

symmetricum n. sp.

Form shorter and stouter, oval, strongly convex, polished, piceous-black with faint bronzy lustre, the pubescence extremely short, sparse and inconspicuous; head rather finely but strongly, closely punctate, less densely medially, the supra-orbital carinæ distinct, the surface feebly impressed along them internally, the epistoma angulate; antennæ nearly as in *fusiforme*; prothorax more transverse than in the two preceding species, nearly a third wider than long, the form nearly similar, the sides evenly and moderately arcuate throughout, the basal angles right, the apical acute and produced, the surface finely but strongly, sparsely punctured, gradually becoming densely and notably coarsely so laterally but finer at the edge than at some distance therefrom as in *symmetricum*; scutellum similar, impunctate; elytra rather rapidly and arcuately narrowed in apical third, the sides arcuate, the humeri rounded and slightly exposed at base, with the callus unusually pronounced, the surface with rather distinctly impressed lines suturally, the punctures very fine and sparse, becoming much larger and closer but still well separated laterally, confused though with rather obvious series of larger punctures, irregularly single suturally but becoming wider aggregations laterally as in *gracile*; abdomen rugosely punctured broadly toward the sides, finely and rather sparsely medially. Length 9.3-10.0 mm.; width 4.2-4.7 mm. Arizona (southern), — F. H. Snow.

pimalicum n. sp.

Form still shorter, almost similarly stout, strongly convex, polished, dark piceous-brown with faint æneous lustre; head rather coarsely and densely punctate, more sparsely so at the centre of the vertex, the epistomal lobe large, ogivally rounded; prothorax (♂) a fourth wider than long, the sides evenly converging from the base, broadly, subevenly arcuate, the apical angles somewhat acute, but slightly prominent, the basal a little more than right, slightly blunt, not everted, the surface evenly convex, rather finely, sparsely punctate medially, gradually somewhat coarsely and closely so laterally; prothorax (♀) a little more transverse, similar but with the punctures much more close-set throughout, becoming only moderately separated medially; elytra rather rapidly ogivally acute in apical third, much wider than the prothorax and about three times as long, the humeri obliquely and moderately rounded to the thoracic base, with the callus short but pronounced, the surface with obsolete impressed lines suturally, more evident in the female, the punctures rather fine and sparse suturally, somewhat coarse and close-set but shallow and some-

what scabrous laterally; abdomen minutely, rather sparsely punctured medially, polished. Length 8.5–10.0 mm.; width 3.7–4.5 mm. Arizona (Oak Creek Canyon), — F. H. Snow.

æneopiceum n. sp.

Form narrowly fusoid, convex, much smaller than any of the preceding species, blackish-piceous, polished, with a moderate æneous lustre; head rather finely, moderately closely punctate, more coarsely and coalescently toward the eyes, the epistoma large, broadly ogival; prothorax a fourth wider than long, the sides evenly and rather strongly arcuate, becoming sinuate before the moderately acute and everted basal angles and more convergent and straight at the apical angles, which are acute, not at all blunt or everted and only moderately prominent, the surface evenly convex, finely and sparsely punctured medially, gradually densely and somewhat coarsely so laterally, the punctures near the sides separated by nearly their own widths; scutellum moderate, broadly ogival; elytra elongate, very gradually ogivally acute posteriorly from behind the middle, the sides rapidly rounded at the humeri, which are exposed at base, rather less than three times as long as the prothorax and much wider, the punctures only moderately fine, somewhat sparse and irregular suturally, decidedly coarse, close and asperulate, though shallow as usual, laterally, the impressed lines obsolete; abdomen strongly and not very finely, somewhat closely punctured medially. Length 8.2 mm.; width 3.4 mm. Arizona (Douglas, — Cochise Co.), — F. H. Snow.....*docile* n. sp.

9—Body rather narrowly oval (σ^7), stouter and somewhat dilated behind the middle (♀), strongly convex, moderately shining, the elytra rather dull, black without distinct metallic lustre, the pubescence extremely short and inconspicuous; head rather finely, densely punctate, more sparsely in a small area at the middle of the vertex, each puncture with a small brilliantly silvery seta, the tenth antennal joint nearly one-half wider than long, much more strongly rounded on the inner than the outer side; prothorax less than a fourth wider than long, but little narrowed anteriorly, the apical angles rather obtuse from above but normally acute and anteriorly prominent from an oblique anterior viewpoint, much deflexed, the basal angles somewhat more than right and not at all prominent but not rounded, the sides evenly and moderately arcuate; surface strongly, transversely convex anteriorly, rather finely but strongly, moderately sparsely punctate, becoming coarsely and densely so laterally, each puncture with a small silvery seta, the median line impunctate except near the apex and base; scutellum slightly transverse, somewhat tumid, rounded; elytra rather rapidly acuminate with strongly arcuate sides in apical third, the apical angles acute and simple, the sides arcuate, the humeri very gradually rounded to the thoracic base, at the middle a fourth (σ^7) to two-fifths (♀) wider than the prothorax,

the punctures moderately coarse, rather close-set, still closer and larger but shallow laterally, confused, the feebly impressed lines with rather denser but very obscure aggregations of punctures; abdomen rather strongly and closely punctured medially. Length 9.0-9.6 mm.; width 3.85-4.5 mm. Arizona.

propinquum n. sp.

- 10—Median impunctate line of the pronotum very narrow, subelevated, only visible at and behind the middle. Body suboval, strongly convex, somewhat shining, black with a feeble coppery to greenish metallic lustre, each puncture with a small silvery hair; head rather coarsely, extremely densely and subrugosely punctate throughout; prothorax rather more than a fourth wider than long, but little narrowed anteriorly, the apex about four-fifths as wide as the base, with the angles rather strongly deflexed though very acute and anteriorly prominent from an oblique viewpoint, the basal angles slightly less than right, with thickened marginal bead and very slightly prominent, the sides subevenly but very feebly arcuate; surface coarsely, perforately punctate, the punctures separated by but little more than their own diameters medially, becoming still coarser and dense laterally, smaller and extremely dense at the edges; scutellum tumid, impunctate, angulate posteriorly; elytra rather rapidly and arcuately narrowed at tip, with the angles simple and acute, the sides arcuate to the obtusely subangulate humeri, which are very narrowly exposed at base, at the middle fully two-fifths wider than the prothorax, the surface with broad and feebly impressed lines throughout the width, very finely but rather closely punctate suturally, more coarsely and densely laterally, confused throughout, without traceable series; abdomen finely but strongly, closely punctate medially. Length 8.7-10.7 mm.; width 3.9-4.9 mm. New Mexico and Kansas.....*cribricolle* n. sp.

Median impunctate line normal, flat, extending almost to apex and base 11

- 11—Form broadly fusoid, strongly convex, small in size, not very shining, black with obscure bronzy lustre, without metallic lustre beneath; hairs borne by the punctures extremely small; head trapezoidal, densely and deeply, rather coarsely punctured throughout, the antennæ stouter than usual, the club broad; prothorax relatively small, nearly a third wider than long, the apex three-fourths as wide as the base, with the angles not unusually deflexed, acute but only moderately prominent anteriorly, the basal angles right and not prominent, the sides very evenly and rather strongly arcuate throughout; surface coarsely, closely punctured throughout except in a limited area behind the middle, where the punctures are more scattered, densely crowded laterally; scutellum but little wider than long; elytra unusually inflated, with strongly and evenly arcuate sides, gradually and arcuately narrowed in apical two-fifths, the humeri obtusely angulate, very slightly exposed at

base, at the middle almost one-half wider than the prothorax, the surface finely, closely punctate, more coarsely and densely so laterally, without distinct impressed lines, the punctures confused throughout, the sutural angles very acute but simple; abdomen finely rugulose, finely but closely punctured medially. Length 8.5 mm.; width 3.7 mm. Kansas.....**jucundum** n. sp.

Form more narrowly elongate-oval, strongly convex.....12

12 — Body strongly shining; piceous-black with distinct æneous lustre, each puncture bearing a small but very evident cinereous hair; head not very coarsely but closely, evenly punctured, the punctures separated by about their own widths near the middle, the antennæ moderately slender; prothorax relatively small, the apex but little more than two-thirds as wide as the base, with the angles rather strongly deflexed though very acute and anteriorly prominent when viewed subanteriorly, the basal right and not prominent, the sides evenly and distinctly arcuate, the surface strongly but only moderately coarsely, rather closely punctate, the punctures separated by nearly twice their own widths medially, becoming but slightly larger but deep and close though not at all crowded laterally; scutellum moderate; elytra oblong, rather rapidly and arcuately narrowed in about apical third, the sides moderately arcuate to the rounded humeri, which are rather widely exposed at base, at the middle fully one-half wider than the prothorax, the punctures very fine but deep, sparse, becoming larger but shallow and still well separated laterally, with but the feeblest evidences of larger seriate punctuation suturally, the impressed lines almost wanting, slightly evident apically near the suture, the sutural angles very acute but simple; abdomen feebly rugulose, rather finely, not very sparsely and strongly punctured medially. Length 9.8 mm.; width 4.6 mm. Utah (St. George), — H. F. Wickham.
parvicolle n. sp.

Body moderately shining, the upper surface with strong bronzy lustre, the under surface with scarcely any metallic reflection, each puncture bearing an extremely minute and wholly inconspicuous hair; head closely, rather coarsely, deeply punctate, more finely anteriorly; prothorax long, well developed, scarcely a fifth wider than long, the apex three-fourths as wide as the base, with the angles not much deflexed, very acute and anteriorly prominent, the basal slightly acute and prominent, the sides evenly but rather feebly arcuate; surface not coarsely but deeply, rather closely punctate, the punctures separated by rather more than twice their own widths medially, becoming only moderately coarse but deep and very close-set laterally; scutellum well developed, transverse, rounded, flat and impunctate; elytra gradually acute and with moderately arcuate sides in nearly apical two-fifths, the sides broadly arcuate, more rounding at base to the obtuse humeri, which are very narrowly exposed at base, the surface without trace of impressed lines except one along the suture toward tip,

the punctures rather fine and well separated but strong, becoming dense and rather coarse laterally, confused, with scarcely any evidence of series, the sutural angles simple but very acute; abdomen smooth, finely, moderately closely punctured medially. Length 10.5 mm.; width 4.75 mm. Arizona...æquipenne n. sp.

Body moderately obese and shining, colored like the preceding, the tibiae slightly rufescent, the punctures bearing similar very minute and inconspicuous hairs; head rather coarsely, closely punctate, subconfluently so laterally, more finely toward apex; prothorax fully a fifth wider than long, the apex but little more than two-thirds as wide as the base, the sides feebly arcuate, becoming broadly sinuate toward the apical angles, which are not greatly deflexed, very acute and anteriorly produced, the basal angles right and not prominent; punctures coarse and deep, separated by about one-half more than their own diameters medially, becoming very coarse and longitudinally subconfluent laterally, finer and dense near the edges; scutellum large, flat, impunctate, angulate behind; elytra rather rapidly and arcuately narrowed to the acute tip, the sides broadly, evenly arcuate to the obtuse humeri, which are evidently exposed at base, the surface with broadly and feebly impressed lines almost throughout the width, strongly, not very finely and rather closely punctured, densely and rather coarsely toward the sides, the punctures confused but becoming rather coarser and broadly aggregated in the impressed lines, although not very evidently so; abdomen smooth, not very finely, strongly, rather sparsely punctured medially. Male narrower, blacker and more sparsely punctured than the female, to which the description refers. Length 10.0-11.0 mm.; width 4.3-4.8 mm. Arizona (near the southern boundary and San Bernardino Ranch, Cochise Co.),—Morrison and Snow.

morrisoni n. sp.

- 13 — Form rather stout, oval, moderately convex, polished, glabrous, black with strong cupreous lustre, the antennæ nearly black, the legs dark piceo-rufous; head densely, deeply and rather coarsely punctate, the basal excavations very deep and cavernous, the epistoma broadly, obtusely angulate; prothorax nearly one-half wider than long, the apex rather more than two-thirds as wide as the base, with the angles rather deflexed, acute and produced anteriorly, the sides broadly arcuate, becoming more converging and broadly sinuate anteriorly and straight or just visibly sinuate near the basal angles, which are acute and slightly prominent; punctures dense but not crowded toward the sides and apex, coarse toward the former, fine toward the apex, more scattered toward the middle posteriorly and with a partial flat impunctate line; scutellum ogival, about as wide as long; elytra gradually acutely pointed behind in apical two-fifths and gradually declivous on the disk, the sides feebly arcuate, more strongly rounded at base to the thoracic angles, the punctures confused, rather fine but strong,

sparse, becoming rather coarse but still well separated laterally, with regular unimpressed series of rather coarse punctures suturally, which become confused with the other punctures laterally; surface impressed near the sutural angles, which are very acute and slightly mucronate; under surface polished, with greenish metallic lustre, the abdomen somewhat finely and sparsely but strongly punctured medially. Length 13.0 mm.; width 5.5 mm. Nicaragua (Ometepe), — Shimek.....***bicaviceps** n. sp.

Form nearly similar, less stout, glabrous, polished, black with bright coppery-bronze lustre, greenish beneath, the legs dark piceorufous; head rather finely but deeply, very densely punctate throughout, the occipital pits much shallower and triangular in form, the epistomal lobe broadly parabolic; prothorax nearly similar, fully two-fifths wider than long, the apex nearly three-fourths as wide as the base, with the moderately deflexed angles very acute and anteriorly prominent, the sides feebly arcuate or feebly subangulate before the middle, scarcely visibly sinuate anteriorly, the basal angles right, not at all prominent, the punctures only very moderately coarse and slightly separated laterally, becoming fine medially, close-set anteriorly but sparse posteriorly, with a partial impunctate line, the basal lobe strongly rounded, not at all impressed; scutellum similar; elytra similar in form and about a fourth wider than the prothorax, finely, sparsely and confusedly punctate, more coarsely and densely but unevenly so laterally, with the unimpressed series composed of only slightly larger, widely spaced punctures and not at all conspicuous; under surface almost similar. Length 13.0 mm.; width 5.1 mm. Panama (Natá).....***alveolatum** n. sp.

14 — Form oval, somewhat inflated posteriorly, very convex, subopaque from density of sculpture, dark red-brown to blackish in color, the legs not paler, devoid of metallic reflection, the pubescence decumbent, yellowish-cinereous, short but dense; head trapezoidal, somewhat coarsely, very closely punctate; prothorax two-fifths or more wider than long, very convex, the apex fully three-fourths as wide as the base, with the angles greatly deflexed though acute and slightly prominent, with the apex deeply and evenly sinuate between them from an oblique anterior viewpoint, the sides very feebly converging and but slightly arcuate in about basal two-thirds, then rapidly rounding to the apex, the basal angles abruptly and minutely prominent, the surface somewhat coarsely, very closely punctate, extremely densely but not more coarsely laterally, without impunctate line; scutellum well developed, polished, rounded behind; elytra shorter than usual, but little more than two and one-half times as long as the prothorax, and, at the middle, a third wider, rapidly narrowed to the acute apex, the sides strongly, evenly arcuate to the humeri, which are not exposed, the callus very small and feeble, the surface smooth, without distinct impressed lines, rather finely but deeply, very

closely punctured throughout, a little more coarsely so laterally, without trace of series; abdomen somewhat shining, finely, not very closely punctate medially. Length 9.0-9.8 mm.; width 4.2-4.6 mm. Texas. [= *Epitragus ovalis* Csy.]...**ovale** Csy.

Form nearly as in *ovale* but more elongate, very strongly convex, dark piceous, moderately shining, the elytra duller, the pubescence cinereous, short but rather abundant and distinct; head somewhat coarsely, densely punctate, with the merest trace of fine orbital carinae, the epistomal lobe large, rather acutely angulato-ogival; prothorax not quite a third wider than long, the apex three-fourths as wide as the base, the sides subevenly and feebly arcuate, becoming more converging and subsinuate anteriorly, the angles much deflexed, acute, not blunt and moderately prominent, not everted, the basal angles acute and very slightly everted; surface evenly and strongly convex, not very finely, perforately and not very closely punctate, with a narrow smooth line medially, gradually not very coarsely but very densely and coalescently so laterally; elytra three-fifths longer than wide, barely three times as long as the prothorax and two-fifths wider, subinflated behind the middle, thence gradually acutely ogival to the tip, the sides less arcuate basally, the humeri obtusely subangular and very slightly exposed at base, the callus narrow and very feeble, almost obsolete; surface with very feebly impressed lines suturally, strongly, not very finely and moderately closely punctate, more coarsely, rather densely and asperulately so laterally; abdomen shining, minutely, rather closely punctulate medially. Length 9.5 mm.; width 4.2 mm. Kansas (Wallace Co.).....**obscurum** n. sp.

Form somewhat as in the female of *Bothrotres canaliculatus* Say, but with the prothorax more convex, plumbeo-aneous, almost opaque, clothed with short cinereous pubescence; head densely punctate; prothorax almost one-half wider than long, narrowed anteriorly, the sides rounded, the apical angles subacute and not at all prolonged, the surface finely and densely punctate; elytra densely punctulate and rugose, somewhat obsoletely striate. Length 10.0 mm. Kansas. [= *Epitragus plumbeus* Lec.]...**plumbeum** Lec.

15 — Body rather stout, elongate, fusiform, convex, polished, dark piceous or blackish with very strong aeneous lustre, the tibiae, tarsi and antennae rufescent; pubescence rather long, subdecumbent, nearly white, moderately close; head coarsely, sparsely punctured, more closely laterally and anteriorly, the epistoma broadly, angularly lobed, the lateral lobes very small, rounded, the labrum impressed along the middle and clothed with long silky hairs; supra-orbital carinae completely obsolete; prothorax one-half wider than long, strongly narrowed, the apex about three-fifths as wide as the base, with the angles right, but little produced and evidently rounded, the sides evenly and moderately arcuate throughout, the basal angles right, not prominent but not rounded, the surface not coarsely but strongly, sparsely punctate, but little more coarsely

though rather closely so very near the sides: scutellum rounded, fully as long as wide, pubescent; elytra gradually narrowed to the narrowly truncate tip in apical two-fifths, the sides feebly arcuate, more strongly rounded at the humeri to the thoracic angles, at the middle about a fourth wider than the prothorax; surface without impressed lines, except one along the suture toward tip, minutely punctate, the punctures arranged in a few alternating broad stripes, in which they are very sparse and rather closely aggregated, less evident laterally, where the punctures become slightly larger and closer and with the surface minutely rugulose, the side margin finely serrate; abdomen with long white pubescence not concealing the surface, minutely, not closely punctate medially. Length 12.0 mm.; width 5.0 mm. Arizona. [= *Epitragus vestitus* Csy.].....*vestitum* Csy.

- 16—Body rather narrowly elongate-fusoid, moderately convex, glabrous, polished, black, the elytra somewhat piceous, strongly æneous in lustre, with scarcely metallic lustre beneath, the legs dark piceous; head rather coarsely and strongly, somewhat sparsely punctured, the lateral lobes of the front rounded but almost as anteriorly prominent as the epistomal lobe; eyes much more coarsely faceted than in any of the preceding species, the supra-orbital carinæ fine; prothorax nearly one-half wider than long, the apex broadly sinuate, two-thirds as wide as the base, the angles but slightly acute and not very much advanced though not at all blunt, the sides almost evenly but rather feebly arcuate, very slightly sinuate just before the basal angles, which are somewhat acute and prominent, the punctures fine and sparse, becoming slightly coarse but still widely separated laterally, without impunctate line except feebly at base; scutellum ogival, as long as wide; elytra very gradually acutely pointed and gradually declivous in apical two-fifths, the sides feebly arcuate, abruptly rounded at base to the thoracic angles, a third wider than the prothorax, the punctures minute, very sparse and confused throughout the width, with nine even, entire and unimpressed series of moderately coarse, deep, rather well separated punctures, not at all confused or larger toward the sides; abdomen smooth, finely and sparsely but strongly punctured medially. Length 11.5 mm.; width 4.38 mm. Panama (Natá).....* *godmani* Champ.

The genus *Lobometopon* proper includes, besides the American species above described, most of the Mexican and Central American sexually similar forms with lobed epistoma, recently made known by Mr. Champion in the "Biologia." *Epitragoma* and *Epitragopsis* are treated as subgenera in the table, though I have but little doubt that they will ultimately be regarded as true genera. The latter is, like *Epitragus*, a purely South American group, only penetrating Central Amer-

ica for a short distance beyond the Isthmus of Panama, and the type described above under the name *godmani*, agrees with Mr. Champion's description, except that the lateral lobes of the front are described as diverging; they are in no sense everted in the specimen described above, but have their external sides internally rounding anteriorly; *communis* Champ., is a closely allied species and I have another still smaller, represented by two specimens from Espirito-Santo, Brazil. The singular cephalic characters of *bicaviceps* and *alveolatum* may possibly relate only to the females of the *cupreus* type, to which they evidently belong. *Epitragoma*, represented in our fauna at present by a single species, includes also the Mexican *Epitragus chevrolati* and possibly also *pilosus*, of Champion; it seems to be purely Sonoran in habitat. The left antenna in the unique type of *uintanum* becomes gradually pale testaceous toward tip, the right antenna being black throughout, — a singular malformation. In *aberrans* there is a feeble modification of the apical part of the prothorax, reminding us of the male of the next genus, but this cannot be regarded as a transitional character; it is related to *metallicus*, which is out of place in the arrangement of the "Biologia," but differs in the much more transverse prothorax.¹

¹ Since this was written I have received from Mr. Champion, good series of examples of forms related to *metallicus* and *cupreus*, from various points in Mexico and Central America. These specimens shed much light on the difficulties and uncertainties attending generic delimitation in this part of the Epitragini, for it is quite evident that the females of some of the closely allied forms of the *metallicus* group, have pronotal characters similar in form to those of *Bothrotres*, although so feeble in development as to indicate that these characters in *Lobometopon* may simply be atavistic or reversional in nature. One of the chief peculiarities of *Lobometopon* consists in the acutely and gradually pointed form of the body posteriorly; this is as well developed in the *metallicus* group as in the more typical species and, even though some females of that group have two feeble pronotal ridges and a very slightly thickened lateral margin, it is to be noted that these ridges never extend to the apical margin or interrupt the continuity of the latter as they do in *Bothrotres*. I am therefore of the opinion that the *metallicus* group cannot be held to unite the genera *Lobometopon* and *Bothrotres*. The specimens of the *cupreus* group before me show rather conclusively that the excavation behind each eye, alluded to in the above table, is a sexual character affecting the female. Attending this character we have finer and denser punctures of the head and of the pronotum, especially toward the apex and sides of the latter. There are a good many species belonging to both the *metallicus* and *cupreus* groups, but the material sent me seems to show that those made known in the present paper are distinct from those described by Mr. Champion in the "Biologia."

Bothrotes n. gen.

This is the largest genus of the Epitragini in North America and is possibly the most isolated in general facies. The remarkable sexual discordance in the structure of the prothorax has but few parallels in the Coleoptera, the pronotum of the female having two prominent longitudinal ridges, evanescent toward base, the space between them and between each and the side margins concave and the lateral margins thickened. In the male, not only are the ridges obsolete and the side margins very fine, but the entire sculpture is generally coarser. The ridges are not absolutely obsolete in the male, being traceable by two inequalities of the anterior margin, and, sometimes, by a flattening of the disk. The body is shorter and stouter, as a rule, than in *Lobometopon* and more obtusely rounded at the posterior extremity, but the tarsi have the same dense pads of pubescence and the frontal parts of the head and the sternal structure are similar. The fine simple upper margin of the epipleuræ attains the sutural angles but at a considerable distance within the lower margin, which becomes more outwardly prominent near the angles, with the intermediate surface deeply grooved, and the united tips of the elytra are protected and sunken partially below the upturned edge of the last ventral segment. The only modification on the posterior declivity of the elytra, is a slight concavity between the one or two somewhat accentuated ridges separating the usual broadly impressed lines, so characteristic of the tribe in general, together with a few series of small, widely spaced asperities, which also appear in some of the Eurymetoponini. The eyes are flattened and minutely faceted; the supra-orbital carinæ are very fine or subobsolete and the anterior angles of the prothorax acute and anteriorly prominent. The species are difficult to tabulate because of deficiency in salient structural divergencies, but those in my cabinet may possibly be recognized by the following descriptions:—

- Species larger in size, always strongly bronzed.....2
 Species smaller, less metallic as a rule and generally darker in coloration6
 2 — Pronotum (♂) rather strongly impressed along the median line.
 Body elongate-oval, strongly convex, bright coppery-bronze in

lustre above and beneath, the pale pubescence long, not concealing the surface but very conspicuous; head coarsely, rather closely punctate, more finely and densely on the large angulate epistoma, with an impunctate spot at the middle of the occiput; prothorax (♂) large, not a third wider than long, the apex two-thirds as wide as the base, with the angles acute and produced but not very slender and not everted, the sides perfectly straight, excepting for a space from the middle nearly to the apex where they are feebly arcuate, the basal angles acute but not everted, the surface perceptibly tumid at each side of the middle anteriorly, strongly, somewhat coarsely, rather sparsely punctate, more coarsely and closely so laterally, with an impunctate median line; elytra oval, obtusely rounded behind, at the middle nearly one-half wider than the prothorax, the sides arcuate, more strongly rounding at base to the thoracic angles, rather finely but strongly, sparsely punctate, scarcely more coarsely but more closely laterally, with very feebly impressed longitudinal lines throughout; abdomen strongly, closely punctured. Length 13.0 mm.; width 6.0 mm. Florida (Key West) **fortis** n. sp.

Pronotum (♂) at most only feebly impressed along the median line.3

3 — Supra-orbital carina obsolete or scarcely traceable.....4

Supra-orbital carina rather distinct though fine; body only moderately large and unusually narrow.....5

4 — Form stout, oblong-oval, convex, rather strongly shining, dark bronzed in lustre, the pubescence shorter than in *fortis*, conspicuous but not at all concealing the integument; head moderately coarsely and closely punctate, the epistomal lobe rounded; prothorax (♂) two-fifths wider than long, with the apex four-fifths as wide as the base, the angles acute, prominent, prolonged and everted, the sides feebly arcuate, the basal angles slightly everted but not very sharp, the surface almost even, rather coarsely, closely punctured laterally, more finely and sparsely medially; prothorax (♀) smaller, more transverse, trapezoidal, with the sides nearly straight and with the greatly thickened margin dilated in the middle, the apical angles more acute but not everted, the ridges very strong, the surface more finely and sparsely punctate, with a fine carina along the middle in the concavity between the ridges; elytra nearly three-fifths longer than wide, the sides parallel and feebly arcuate, rounded at base, almost smooth and with scarcely visible impressed lines suturally, not coarsely but strongly, rather closely punctate, somewhat more coarsely, closely and with the surface more chagrined laterally; abdomen finely, closely punctate and with short pale pubescence. Length 12.4-12.8 mm.; width 5.8-6.1 mm. Texas (Columbus and Luling). [= *Epitragus acutus* Lec.]..... **acutus** Lec.

Form stout, nearly as in *acutus* but with much coarser and rougher sculpture, strongly bronzed, rather dull, the pubescence somewhat longer, more plentiful and more shaggy; head closely, moderately

coarsely punctured; prothorax (♂) large, not quite one-half wider than long, the apex three-fourths as wide as the base, the angles much prolonged anteriorly but scarcely at all everted, the sides evenly and distinctly arcuate, the basal angles acute and everted, the surface almost even, rather coarsely, closely and subevenly punctured throughout, without evident impunctate line; prothorax (♀) trapezoidal, smaller, with nearly straight sides which are very widely thickened except toward apex, the sculpture and ridges nearly as in *acutus*; elytra conspicuously and coarsely rugose, rather coarsely, closely punctured, densely but less deeply toward the sides, the broad impressed lines feeble; abdomen shining, minutely, not very closely punctulate medially. Length 11.8-12.8 mm.; width 5.7-6.0 mm. Texas..... *subrudis* n. sp.

Form much narrower than in either of the preceding species, elongate-oval, strongly convex, rather shining, brilliant bronze in lustre, the pubescence short, cinereous and not dense; head closely, rather coarsely punctured, the epistoma finely but not very densely, broadly angulate; prothorax (♂) two-fifths wider than long, the apex three-fourths as wide as the base, with the angles narrowly prolonged, prominent and strongly everted, the sides rather strongly arcuate, becoming feebly sinuate toward the basal angles, which are acute and slightly prominent, the surface rather finely and sparsely punctate, more coarsely and closely so laterally, nearly even, with a well marked, obsolete impressed impunctate line; elytra oblong-oval, parallel and feebly arcuate at the sides, strongly rounded at base to the thoracic angles, the surface somewhat coarsely, irregularly plicato-rugose, finely, strongly, not very closely punctate suturally, less finely, closely and rugosely so laterally, the impressed lines wide and feeble but evident; abdomen minutely rugose and strongly, rather closely punctate medially. Length 11.3 mm.; width 5.2 mm. Texas (Del Rio), — H. F. Wickham.

pensus n. sp.

5 — Body elongate-oval, strongly convex, polished and strongly æneous or viridi-æneous, the pubescence short and rather sparse; head rather finely, moderately closely punctured, the epistomal lobe large, angulate; prothorax (♂) about a third wider than long, of the same form as in the preceding species, the sides feebly arcuate, the apical angles very acute and sometimes feebly everted, the basal acute and prominent, the surface sometimes with a feeble narrow tumosity at each side of the middle anteriorly, finely but strongly, rather closely punctate, more coarsely, rather densely so laterally; prothorax (♀) of the same general form and sculpture as in *acutus*; elytra oblong-oval, with feebly arcuate sides, strongly rounded at base to the thoracic angles, at the middle much wider than the prothorax, the impressed lines wide and strong, the punctures minute and sparse suturally, still fine but close-set, with the surface less shining laterally; abdomen finely, feebly rugose and finely, rather sparsely punctate medially.

Length 10.7-11.8 mm.; width 4.6-5.3 mm. Kansas (Pratt Co.),
 — Warren Knaus.....**knausi** n. sp.

6 — Epistomal lobe very sharply triangular, with the sides straight;
 integuments distinctly metallic in lustre.....7

Epistomal lobe obtuse and either ogival or rounded; lustre generally
 not or feebly metallic.....8

7 — Body elongate-oval, convex, the elytra brownish-testaceous, the
 lustre throughout very bright æneous, the surface polished; pubes-
 cence sparse but distinct, rather conspicuous on the male pro-
 notum; head sparsely, moderately coarsely punctured, more
 closely laterally, finely but not densely on the epistoma, the orbital
 carinæ distinct (♀) or obsolescent (♂); prothorax (♀)
 small, transverse, trapezoidal, with the two ridges very strong,
 becoming unusually prominent anteriorly, the general surface
 very finely, sparsely punctate; prothorax (♂) much larger, less
 transverse, with the sides more rounded, the surface nearly even,
 less finely but sparsely punctured medially, somewhat coarsely
 and less sparsely laterally; scutellum tumid, rounded, metallic;
 elytra much wider than the prothorax, especially in the female,
 with distinct, rather narrowly impressed lines, minutely, sparsely
 punctate, less minutely but still finely and rather sparsely and
 with the surface only a little less shining toward the sides; abdo-
 men rather finely but strongly, only moderately sparsely punctate
 medially. Length 8.3-9.8 mm.; width 3.6-4.2 mm. New
 York to Texas (near the sea-beaches).....**arundinis** Lec.

Body not very stout, convex, more oblong-oval, polished, the elytra
 duller, especially toward the sides, black, the elytra less deeply,
 the legs and antennæ deep black, the lustre viridi-æneous anteri-
 orly and beneath, scarcely metallic on the elytra, the legs non-
 metallic; vestiture short and inconspicuous; head rather finely,
 very sparsely punctured medially and but little less sparsely an-
 teriorly, more coarsely but still loosely toward the eyes, where
 the carinæ are distinct and sharply elevated even in the male;
 prothorax (♂) nearly one-half wider than long, trapezoidal, with
 feebly arcuate sides which are not at all sinuate anteriorly, the
 apex fully three-fourths as wide as the base, with the angles acute
 and not at all blunt but not in the least everted, the basal angles
 acute and very feebly everted, the surface even, rather finely but
 strongly, sparsely punctured, less sparsely toward tip, not very
 coarsely, perforately and still sparsely laterally, except along the
 immediate edges where the punctures are a little closer but not
 dense; scutellum rather large, rounded; elytra oblong, obtuse
 behind, with very feebly arcuate sides, strongly rounded at base,
 at the middle about a third wider than the prothorax, with feeble
 but distinct impressed lines, minutely, sparsely punctured sutur-
 ally, still rather finely but more closely and shallowly so laterally;
 abdomen rather finely but strongly, not very sparsely punctured
 medially; female unknown. Length 10.0 mm.; width 4.8 mm.
 Texas (near El Paso).....**æneicollis** n. sp.

Body moderately stout and convex, shining, bright brassy or bronze, the cinereous pubescence fine, rather short and sparse and moderately conspicuous; head moderately coarsely, deeply, evenly and somewhat closely punctate, obtusely elevated at the middle of the vertex, the epistoma broadly angulate with straight sides, the orbital carinae sharply elevated; prothorax (♀) rather small, three-fifths wider than long, almost evenly trapezoidal, the sides straight, excepting a very feeble swelling before the middle, the apical angles very acute, narrowly prolonged and feebly everted, the basal very acute, sharp and not everted, the thickened margin even, narrowed only anteriorly; ridges rather narrow and moderately elevated, straight and parallel, obsolescent near the base, the apex between them broadly sinuate, the depression moderate, gradually evanescent toward the base; punctures fine and rather sparse, with a narrow distinct and subentire smooth line medially, still rather fine but closer laterally; elytra very obtusely rounded behind, two-fifths wider than the prothorax and two and one-half times as long, the sides strongly rounded at base; surface with broadly and moderately impressed lines suturally and finely but rather closely punctured, with coarser punctures in the furrows, larger and dense, shallow and asperulate laterally; male unknown. Length 9.7 mm.; width 4.5 mm. Texas (Alpine), — H. F. Wickham **chalceus** n. sp.

8 — Head (♀) very opaque and feebly impressed across the base of the vertex, where the punctures become very fine; supra-orbital carina fine but strong and acutely elevated at least in the female..9

Head (♀) not notably more impressed or differently sculptured entirely across the base of the vertex, more shining and more coarsely sculptured.....10

9 — Pronotal ridges (♀) arcuate anteriorly, the inclosed depression more rounded. Body stout, deep black throughout, shining but without metallic lustre, the pubescence extremely minute and scarcely discernible; head finely, rather closely and very evenly punctured, slightly shining, the transverse depressed band behind the vertex densely opaque and finely, more sparsely punctate, each puncture with a short silvery hair, the occiput convex, the epistoma very broadly and obtusely ogival; prothorax (♀) transverse, fully three-fifths wider than long, trapezoidal, with very feebly arcuate sides becoming slightly sinuate near the apical angles, which are very acute but not much produced, the thickened margin unusually fine, thick near the base, where the angles are right and not at all prominent; ridges broadly convex, very feeble and subobsolete behind the middle, interiorly oblique anteriorly, moderately prominent at apex, the general surface alutaceous, rather finely but deeply, not very sparsely punctate, more coarsely and a little less sparsely so laterally, impunctate along a fine line adjoining the thickened edge except toward base; scutellum moderate, acutely ogival, as long as wide; elytra broad, oblong, one-

half longer than wide, the sides feebly arcuate, strongly rounding at base, at the middle two-thirds wider than the prothorax, the impressed lines obsolete except suturally toward tip, where they are strong as usual, the punctures fine, sparse, becoming slightly coarse and closer but shallow, with the surface but little less shining, laterally, having also some very feebly defined and irregular disconnected lines of larger punctures suturally; abdomen shining, with rather small but strong, somewhat close-set punctures and with the surface feebly rugulose medially. Length 10.5 mm.; width 5.3 mm. Arizona (Seligman), — H. F. Wickham.....**tenebrosus** n. sp.

Pronotal ridges (♀) parallel and straight or virtually so. Body stout, oblong-oval, convex, shining, black, the upper surface with a feeble and more grayish lustre, the under surface feebly viridicæneous; pubescence extremely short and very inconspicuous; head elongate, only moderately coarsely but deeply, densely and subevenly punctate, finely and sparsely in the more opaque area before the transversely tumid occiput, the epistoma strongly ogival, with the sides but slightly arcuate; prothorax (♀) not quite one-half wider than long, trapezoidal, with the sides very feebly, evenly arcuate from the rectangular and non-prominent basal angles anteriorly, becoming obviously sinuate behind the very acute, prolonged and everted apical angles, the thickened margin subequal throughout and minutely, densely punctate; ridges rather narrowly elevated, becoming broad and feeble posteriorly, the surface alutaceous, finely, loosely punctate, rather coarsely and somewhat closely laterally, with a very fine impunctate line along the margin in apical half, and another, along the median line and not attaining the apex, flat as in *tenebrosus* and not at all elevated; elytra as in *tenebrosus* but more elongate, nearly smooth, at the middle not more than one-half wider than the prothorax, the impressed lines broad and subobsolete on the disk, the punctures rather coarse, deep and close-set, becoming still coarser, dense and subscabrous laterally; abdomen as in *tenebrosus*. Male with the head and prothorax more coarsely but closely punctate, the latter relatively rather small, with the anterior angles produced and prominent. Length 10.0–10.8 mm.; width 4.8–5.2 mm. Arizona (Tucson).....**occipitalis** n. sp.

- 10 — Body narrowly oval in form, somewhat as in *arundinis* and *aneicollis*..... 11
- Body stout in form..... 14
- 11 — Integuments black, with a dull bronze lustre..... 12
- Integuments without metallic lustre..... 13
- 12 — Form moderately narrow, convex, moderately shining, with very short inconspicuous pubescence; head somewhat longer than wide, rather coarsely, very closely punctate, the epistoma broadly and obtusely ogival; prothorax (♂) one-half wider than long,

the apex three-fourths as wide as the base, with very feeble and broadly sinuato-truncate lobe, the angles acute, produced and everted, the basal angles right, not at all everted or prominent, the sides evenly and feebly arcuate to the sinus behind the apical angles; surface rather coarsely, very deeply and closely punctate medially, very densely so but not more coarsely laterally, more finely at about lateral fourth and at the sides, not distinctly bi-impressed at base; elytra barely one-half longer than wide, three times as long as the prothorax and a fourth wider, rapidly obtusely ogival posteriorly, the sides broadly, evenly arcuate to the humeri, which are not exposed at base, the callus very feeble, the punctures only moderately small, deep and rather close-set suturally, larger but shallow, dense and subscabrous laterally, with very obsoletely impressed lines including some coarser punctures suturally; female unknown. Length 10.6 mm.; width 4.9 mm. Arizona.....**confertus** n. sp.

Form similar but more depressed, more shining, the elytra with greenish-bronze lustre, the pubescence very short and inconspicuous; head nearly as wide as long, rather coarsely, closely punctate, the epistomal lobe large, much produced, very obtusely ogival; prothorax (♂) rather less than one-half wider than long, the apex a little more than three-fourths as wide as the base, with the lobe very feeble, truncate, the angles rather thick, somewhat blunt at tip, much produced and strongly everted, the basal angles slightly acute but not everted, the sides straight, becoming very feebly arcuate before the middle to the post-angular sinus, the surface very distinctly impressed near each side at base, rather coarsely, closely punctate, finely and very densely so at lateral fourth and near the edge, coarsely and less densely intermediately, without impunctate median line; elytra fully one-half longer than wide, a little more than three times as long as the prothorax and almost a third wider, very rapidly and obtusely ogival at tip, the sides broadly arcuate, more rapidly rounded at base to the thoracic angles, the callus moderately prominent; surface wholly devoid of trace of impressed lines, unusually coarsely, deeply and closely punctate, scarcely more coarsely but more shallowly and moderately closely so laterally; female unknown. Length 9.5 mm.; width 4.3 mm. Arizona.....**eversus** n. sp.

Form more narrowly elongate-oval, more convex than in *eversus* and less shining, the pubescence very short, inconspicuous; head as wide as long, only moderately coarsely and not very closely punctate, the epistomal lobe broad and angulato-ogival, the sides less arcuate than in the preceding species; prothorax (♂) a little more than one-half wider than long, the apex as in *eversus*, with the lobe feeble and sinuato-truncate, the angles very different, short, not produced, very feebly everted and scarcely prominent though acute and not blunt, the basal angles and sides as in *eversus*; surface finely, rather sparsely punctate medially, a little

more coarsely and less sparsely near lateral fifth but elsewhere laterally more finely and closely, the median impunctate line distinct and well defined except anteriorly; elytra fully two-thirds longer than wide, much less rapidly and less obtusely ogival at tip than usual, the sides broadly arcuate, gradually a little more strongly so basally, the callus feeble; disk three and one-half times as long as the prothorax and barely a fifth wider, wholly devoid of broadly impressed lines, a very fine line near the suture sometimes visible, finely, rather sparsely punctured suturally and with feebly marked lines of slightly coarser punctures, a little larger but shallow and well separated laterally; female unknown. Length 10.0 mm.; width 4.4 mm. New Mexico (Fort Wingate).
affinis n. sp.

Form nearly as in *eversus*, moderately convex, shining, the pubescence a little longer, rather evident; head moderate, coarsely, closely punctate, the epistomal lobe large, moderately produced, very obtusely ogival; prothorax (♀) one-half wider than long, the sides very evenly and feebly arcuate from the acute but not prominent basal angles to the small and acute, not much produced and unevered apical angles, the thickened margin gradually broader toward base, the ridges moderate, unusually widely separated anteriorly, short, evanescent near the middle, the inclosed depression broad and feeble, the punctures rather small and sparse, larger and closer laterally, the impunctate line distinct nearly to the apex; elytra nearly one-half longer than wide, more than three times as long as the prothorax and nearly two-fifths wider, very obtusely subparabolic at tip, the arcuate sides more strongly rounded at base, the punctures not very fine, deep and moderately close, becoming a little larger, shallow but well separated laterally, the surface wholly devoid of impressed lines except the usual impressions on the apical declivity; male unknown. Length 9.0 mm.; width 4.4 mm. New Mexico (Sta. Fé Canyon),—F. H. Snow.....**pertinax** n. sp.

13 — Black, the elytra very dark brownish-piceous to blackish, the pubescence not long but conspicuous, the surface moderately shining, head nearly as in *affinis* but with the epistoma more prominent and much less obtuse; prothorax (♂) evidently less than one-half wider than long, trapezoidal, with broadly and feebly rounded sides, becoming slightly more converging and feebly sinuate near the angles, which are very acute and not at all blunt but not produced, the basal angles very acute and slightly everted, the surface strongly flattened in nearly median half, the sides of the flattened part slightly tumid anteriorly and the apical lobe pronounced, the punctures not decidedly coarse but deep and moderately separated, becoming very close-set and still coarser laterally, the median line narrowly impunctate except anteriorly; scutellum rather rounded behind, wider than long; elytra obtusely ogival at tip, the sides broadly arcuate, more rounded at base, a

third to two-fifths wider than the prothorax, with broadly impressed but very evident longitudinal lines throughout the width, the punctures rather coarse, deeply impressed and close-set, becoming but little larger, dense, shallow and scabrous laterally; abdomen closely and strongly punctured and finely, strongly rugulose medially. Length 9.0-10.3 mm.; width 4.1-4.6 mm. New Mexico (Sta. Fé Canyon).....**picipennis** n. sp.

Black throughout, convex, moderately shining, the pubescence very short but rather distinct; head moderate, coarsely, moderately closely punctured, sparsely so medially (σ) or less coarsely, more closely and evenly so (ϕ), the epistoma obtusely ogival, more rounded in the latter sex; prothorax (σ) one-half wider than long, trapezoidal as usual, the sides subevenly and feebly arcuate, feebly sinuate behind the apical angles, which are not much produced but very acute and slightly everted, the basal angles acute, not at all everted; surface sensibly elevated and flattened anteriorly, the lobe very feeble, slightly sinuate, the punctures strong but sparse medially, coarse and closer near lateral fifth, smaller and dense near the edges, the median smooth line distinct; prothorax (ϕ) nearly similar in outline and size, the sides similarly arcuate, the post-angular sinus subobsolete, the angles almost similar, very acute but not much prolonged, the basal angles acute, not at all everted, the thickened margin subequal throughout, the ridges moderate, short, obsolescent near the middle, the inclosed depression rather feeble, the punctures fine and sparse, only a little less fine and sparse laterally; elytra one-half longer than wide to rather more, much wider than the prothorax, the sides more strongly rounded at the humeri, the callus feeble, the surface without evident impressed lines, finely and very sparsely punctate suturally, somewhat coarsely but feebly and not densely so laterally. Length 9.3-10.5 mm.; width 4.2-4.8 mm. Arizona (Ash Fork).

secutor n. sp.

Var. A — Body (σ) nearly as in *secutor* and with similar smooth elytra, unusually remotely punctured suturally, somewhat less slender in form, the head less coarsely, more densely and uniformly punctured, the prothorax not evidently flattened anteriorly, more closely punctured throughout, somewhat impressed on the median line before the middle and with the basal angles very evidently everted. Length 9.8 mm.; width 4.6 mm. New Mexico (Galisteo), — F. H. Snow.....**apertus** n. var.

14 — Color piceous, always paler on the elytra.....15

Color deep black, sometimes with a very faint bronze lustre.....16

15 — Body rather stout, moderately shining, dark piceous, the anterior parts black with a very faint metallic lustre, the pubescence very short and inconspicuous; head (σ) coarsely, deeply and not very closely punctured centrally, densely and less coarsely laterally and anteriorly, or less coarsely, closely and uniformly so (ϕ), the

epistoma obtusely, ogivally rounded; prothorax (♂) three-fifths wider than long, moderately narrowed apically, the sides rather strongly rounded at the middle, becoming more converging and feebly sinuate anteriorly and obsoletely sinuate near the basal angles, which are acute and slightly everted, the apical angles acute and very feebly everted but not prolonged anteriorly, the surface medially flattened near the apex, the lobe rather evident, the punctures somewhat coarse but sparse medially, also very coarse and well separated at about lateral fifth, smaller and dense laterally, where there is a feeble impression of the surface at about the middle of the length; prothorax (♀) almost similar in form and size, the sides feebly arcuate near apical third, thence straight to the base, more converging and feebly arcuate to the apex, the angles small, acute, not in the least everted, the basal angles not everted, the ridges straight, obsolescent at the middle, the intermediate depression moderate, the punctures fine and sparse, with the impunctate line more complete than in the male, rather coarse and close-set laterally; elytra one-half longer than wide, less in the female, obtuse at tip, the side more rounded at the humeri, the surface with broad and feebly impressed lines, rather finely but strongly, somewhat closely punctate, feebly and closely, shallowly so laterally. Length 10.0-10.3 mm.; width 4.6-4.8 mm. New Mexico (Magdalena Mts. and Fort Wingate).

acomanus n. sp.

Body very stout, oblong-oval, moderately convex and shining, piceous, the elytra pale brownish, the pubescence short but cinereous, abundant and rather conspicuous; head rather coarsely, closely punctured, or less coarsely and more densely (♀), the epistoma broadly, ogivally rounded; prothorax (♂) one-half wider than long, of the usual form, the sides feebly arcuate medially, becoming very obsoletely and broadly sinuate apically and basally, the apical angles acute and prominent, very feebly everted, the basal somewhat bluntly acute and just visibly everted, the surface very feebly flattened discally, except toward base, the anterior lobe vestigial, the punctures not coarse but strong, moderately sparse, with imperfect smooth line medially, decidedly coarse but not dense near lateral fifth and fine and dense at each side of the latter areas as usual; prothorax (♀) a little smaller and more transverse, the sides almost straight, with broadly thickened margin, the apical angles very finely acute and slightly everted, the basal very acute but scarcely everted, the ridges very strong, obsolescent near the base, somewhat converging posteriorly, the depression strong, the punctures minute and sparse, still very fine and sparse laterally; elytra two-fifths to one-half longer than wide, very obtuse at tip, the sides strongly rounded at base to the thoracic angles, the surface with broadly impressed lines, becoming obsolete in the male, strongly, rather closely punctate, more closely, coarsely and muricately but shallowly toward the sides. Length 9.7-10.5 mm.; width 4.5-5.2 mm. Colorado, — Cab. Levette.

neglectus n. sp.

16— Female with long and generally pronounced parallel and moderately separated dorsal pronotal ridges, evanescent only near the base17

Female with short, more or less feeble ridges, evanescent near the middle18

17— Body small in size, moderately slender and convex, shining, d. ep black, without metallic lustre except a feeble greenish tinge on the elytra; head rather coarsely, confluent punctate toward the eyes, less closely along the middle, which is unusually convex; prothorax (♀) small, transverse, rather more than one-half wider than long, trapezoidal, the sides nearly straight, the apical angles very acute and not blunt but not prolonged, the basal acute but not everted, the ridges strong, straight, extending almost to the base, the surface deeply concave in the middle anteriorly, finely, rather sparsely punctate, less finely and very closely laterally, the thickened margin subeven in width; scutellum parabolic; elytra barely one-half longer than wide, obtuse at tip, the sides arcuate, abruptly and strongly rounded at base, at the middle almost two-thirds wider than the prothorax, the surface with feeble and broadly impressed lines throughout, finely but strongly, rather closely punctured, more coarsely, shallowly, densely and scarabrously toward the sides; abdomen minutely, unusually sparsely and very inconspicuously punctulate medially; male unknown. Length 8.5 mm.; width 4.0 mm. Kansas.....*insitus* n. sp.

Body much larger, rather dull in lustre as a rule, grayish-black, sometimes with a feeble bronze lustre, the pubescence short but rather abundant and distinct, cinereous; head densely and moderately coarsely punctate in both sexes, the epistomal lobe very broadly ogival; prothorax (♂) more than one-half wider than long, moderately narrowed at apex, the sides rather strongly, subevenly arcuate, sinuate behind the apical angles, which are moderately acute and prominent, everted, the basal angles acute and more or less everted, the surface almost evenly convex, the apical lobe very feeble, the punctures fine but strong, moderately sparse, with the smooth line imperfect, becoming not very coarse but close near lateral fifth and finer and very dense near the edges; prothorax (♀) nearly similar in form and size, the sides very feebly arcuate, the basal angles acute but not everted, the apical acute but not evidently everted, the thickened margin broader basally, the ridges strong, moderately separated, the inclosed impression extending behind the middle, the punctures fine and sparse, only a little less fine but rather close-set laterally; elytra oblong, obtuse behind, much wider than the prothorax and more than three times as long, the sides strongly rounding at base, the surface with broadly and feebly impressed lines as a rule, finely and rather closely punctate, not very coarsely, closely and asperulately so laterally. Length 10.0–12.0 mm.; width 4.7–5.7 mm. Colorado (Colorado Springs), Kansas, New Mexico (Magdalena Mts., Sta. Fé Canyon and Albuquerque) and Texas (Alpine and El Paso).

canaliculatus Say

Body less stout and smaller than in *canaliculatus*, deep black with a moderate, scarcely metallic lustre, the pubescence short, sparse and rather inconspicuous; head not very coarsely and only moderately closely punctured, the epistomal lobe parabolic and very obtuse; prothorax (♂) large, two-thirds wider than long, the apex barely three-fourths as wide as the base, the sides absolutely evenly and strongly arcuate from the apex of the basal to the apex of the apical angles, the latter abbreviated, acute but only slightly prominent, the basal but slightly less than right; surface almost evenly convex, barely perceptibly and broadly flattened medially, the apical lobe very broad and feeble, the punctures fine but strong, very sparse, with a partial smooth line medially, slightly coarse but well separated laterally and scarcely smaller though denser at the edges; prothorax (♀) very much smaller in size and fully as transverse, trapezoidal, with the sides virtually straight, slightly sinuate behind the apical angles, which are finely acute and just visibly everted, the basal very acute but not everted, the thickened margin rapidly broader basally, the ridges not very strong, convex, the intervening depression only moderately deep, the punctures rather fine, sparse, with a distinct smooth line, decidedly coarse and rather close-set laterally; elytra nearly as in *canaliculatus* but with the punctures very fine and sparse suturally, with the coarser punctures in the impressed lines somewhat obvious, especially in the female, coarser but shallow, not rough and only moderately close laterally. Length 10.8 mm.; width 4.8-4.9 mm. Arizona (Ash Fork), — F. H. Snow.....**funebris** n. sp.

- 18 — Form moderately stout, convex, shining, black, with a pronounced bronze lustre, the pubescence very short, sparse and inconspicuous; head moderately coarsely, not very densely punctate centrally, more finely and closely elsewhere, the epistoma obtusely ogival; prothorax (♀) rather less than one-half wider than long, the apex fully four-fifths as wide as the base, the sides subevenly and very feebly arcuate from the moderately acute and uneverted basal angles to the feeble sinus behind the apical angles, the latter acute, somewhat prolonged, slightly everted and prominent, the thickened margin broader toward base, the surface abruptly flattened medially toward base, the ridges moderate, parallel, obsolescent behind the middle, the anterior depression very feeble, scarcely more than flattened, the punctures fine and sparse, with a subentire smooth line medially, moderately coarse and closer laterally, becoming dense near the sides; elytra nearly as in *canaliculatus* but almost one-half wider than the prothorax, with very obsoletely and broadly impressed lines suturally, the punctures fine and sparse, with coarser punctures in the depressed lines, coarser and close-set, shallow but submuricate laterally; male unknown. Length 10.5 mm.; width 4.9 mm. Arizona (San Bernardino Ranch, Cochise Co.), — F. H. Snow.....**perditus** n. sp.

Form very stout, polished, deep blue-black in color, without trace of

metallic lustre, the pubescence very short, sparse and inconspicuous; head rather coarsely and sparsely punctured centrally, finely and sparsely in the transverse subbasal depression somewhat as in *tenebrosus* and *occipitalis*, the coarse punctures longitudinally confluent toward the fine but pronounced orbital carinæ, the epistoma very obtusely and ogivally rounded; prothorax (♀) three-fifths wider than long, very shining, the apex three-fourths as wide as the base, the sides feebly and evenly arcuate from the acute and unverted basal angles to the apex, becoming nearly straight anteriorly, the apical angles small, acute, anteriorly prominent but not much prolonged and not at all everted, the thickened margin broader basally, densely punctulate as usual; ridges rather strong, parallel, feebly arcuate and very short, obsolescent at about the middle, the depression distinct behind the elevated anterior margin, the latter on a level with the crests of the ridges; punctures rather coarse, deep, very sparse medially though becoming very fine and closer near apex and base, moderately fine but deep, evenly distributed and not very close-set laterally; elytra nearly as in *canaliculatus*, two-fifths wider than the prothorax and more than three times as long, the humeri strongly rounded, the punctures notably coarse, very deep and unusually close-set, with scarcely impressed lines of still coarser punctures suturally, becoming but little coarser though dense, shallow and asperulate laterally; male unknown. Length 11.8 mm.; width 5.6 mm. Arizona (San Bernardino Ranch, Cochise Co.), — F. H. Snow.

amplificans n. sp.

Form very stout, shining, deep black, without metallic lustre, the pubescence extremely fine, sparse and scarcely visible, the hairs barely extending beyond the limits of the punctures; head moderately coarsely, loosely punctate medially, more closely laterally and apically, the punctures not coalescent toward the carinæ, which are all but completely obsolete in both sexes; epistomal lobe angularly ogival; prothorax (♀) large, three-fifths wider than long, the apex fully three-fourths as wide as the base, the sides very feebly, subevenly arcuate, becoming just visibly sinuate toward the apical angles, the latter acute with the tip blunt, moderately prominent and very feebly subverted, the basal angles acute, blunt at tip and not distinctly everted, the thickened margin only very feebly elevated, much thickened at the apical and basal angles; ridges broad and very feeble, parallel, obsolete at about the middle, the impression very feeble behind the subelevated anterior margin, the punctures nearly as in *amplificans* but with the finer medial punctures at apex and base much sparser; prothorax (♂) still larger and less transverse, the surface evenly convex and more coarsely and closely punctate, somewhat sparsely medially, with an incomplete smooth line, the apical angles sharply acute but only moderately prominent and scarcely everted, the basal very sharply acute and evidently everted, the sides similarly evenly and feebly arcuate; elytra rather shorter than usual, with

more angulate humeri, only a fourth wider than the prothorax and more than three times as long (♀) or much less (♂), with the impressed lines feeble suturally (♀) or obsolete (♂), the punctures rather coarse and moderately close suturally, not coarser and but little closer laterally though less deep. Length 10.5-11.0 mm.; width 4.9-5.3 mm. Mexico (Guadalajara), — Rolle.

* *obsolescens* n. sp.

The singular structure of the upper surface of the head by which *tenebrosus* and *occipitalis* are separated, is essentially a female character but is never so pronounced or accompanied by so much impression, opacity or reduction of the punctuation elsewhere, as far as noted, although traceable in such obese forms as *amplificans*. It may be also noted, in this connection, that the supra-orbital carinæ are generally fine and feeble, sometimes subobsolete, but that they are almost always much more developed in the female than in the male. The prothorax varies sometimes rather conspicuously in size within the same sex, as for example in *neglectus*, where in one female before me it is fully two-thirds as wide as the elytra and in another, much smaller, only a little more than half the width of the elytra; it may be observed also that the prothorax may be subsimilar in size and outline in the two sexes or may be smaller in the female than in the male, in *arundinis* and *funebri* very remarkably so, while in *acomanus* and *secutor* it is broader and somewhat larger in the female than in the male.

In the single apparently mature female of *subrudis*, a probably accidental character, analogous to that noticed before in the case of *Lobometopon uintanum* occurs, both antennæ being very pale flavo-testaceous, becoming gradually piceous toward base and contrasting greatly with the uniformly black antennæ of the male. The female of *pensus*, received since the original description of that species was written, is remarkably aberrant; it is stouter than the male, the prothorax flattened medially at apex, the flattened part deeply emarginate at apex, with the sides obliquely, anteriorly projecting and prominent, each prolonged longitudinally backward in a small feeble ridge, obsolete before the middle, each ridge bordered internally by a feeble oval impression; there is nothing else like it known to me and it has no appearance of being a sport or monstrosity. The single female

of *junebri*s also possesses a structure which is unique as far as known, but which may be a malformation, the epistomal lobe, instead of being large and projecting, is very small, not more than a third as wide as the front, the front being equally trilobed and deeply bisinuate, the central lobe projecting but slightly beyond the lateral; there is no indication of this peculiar structure in the male, so that it may be accidental in this individual. *Apertus* may prove to be a species distinct from *secutor*, but, as it is founded upon a single specimen and resembles that species considerably, I deem it more prudent to regard it as subspecific for the present. *Canaliculatus* is represented before me by a very large series, giving a good opportunity to observe the limitations of intraspecific variability, and it may be stated that this inconstancy is very pronounced in color, lustre, development of the thoracic ridges of the female, and depth of the impression between them, well developed to obsolete impressed lines of the elytra and in some other characters; a very large series collected at Alpine, Texas, by Mr. Wickham, is particularly useful in this study. It is highly probable that these extreme variations may indicate some well defined subspecies, but the material at hand is not sufficient to confirm this surmise. This species is said, by Say, to occur also in Pennsylvania, but he doubtless confounded *arundinis* with his western species, as the true *canaliculatus* does not occur east of the 100th meridian. I cannot find the species described above under the name *obsolescens*, among those made known by Mr. Champion in the "Biologia," and conclude that it is abundantly distinct, its closest ally apparently being *rorulentus* Champ.

Metopoloba n. gen.

In this genus the body is elongate, fusiform and nearly similar in the sexes, much as in *Lobometopon*, differing superficially in its polished, subglabrous, sparsely and more coarsely sculptured integuments, prominent supra-orbital carinæ, not so much larger in themselves but rendered very prominent by reason of the broad, deep grooves bounding them internally, in the much less prominent and generally obsolete apical angular projections of the prothorax and in having the tarsi spinose beneath, the

anterior and intermediate with small and less conspicuous tufts of coarse dense pubescence, the posterior without trace of finer hairs and with the first joint notably longer than the fourth in many cases. The mandibles are both squarely truncate at tip and hollowed internally at apex, the mentum strongly transverse and coarsely sculptured and the scutellum well developed; the upper margin of the epipleuræ attains the sutural angle, not there more retired than the lower margin as in the preceding genus, but posterior to it, with the intervening surface similarly deeply concave; the upper marginal line is not a smooth carina but is punctured along its crest, sometimes coarsely, and, very near the sutural angle, rapidly descends toward the lower margin. The female is generally a little stouter than the male. The species are not so numerous as those of the two preceding genera, those before me being separable as follows:—

Abdomen coarsely, closely punctured and shining medially.....2

Abdomen finely, densely punctate and more or less opaque medially..4

2—Cephalic grooves extending to the frontal margin. Body stout, oval, strongly convex, polished, black with a slight piceous tinge above; head coarsely, irregularly and not very closely to sparsely punctured; prothorax transverse, one-half wider than long, trapezoidal, with the sides nearly straight from above, broadly arcuate viewed sublaterally; apex four-fifths as wide as the base, unmarginated and truncate but becoming feebly sinuate and margined laterally, with the angles slightly obtuse but not rounded, the basal angles acute but not everted, the surface moderately convex, even, obsoletely and broadly impressed near the base, with rather coarse, sparse and impressed punctures, closer anteriorly, becoming very coarse but well separated laterally and again less coarse and very close on the shallow subvertical flanks near the finely reflexed side margins; scutellum much wider than long, large, broadly angulate behind; elytra broadly arcuate at the sides to the obtuse but only slightly blunt humeri, which are very narrowly exposed at base, slightly widest behind the middle, the apex gradually, acutely ogival, the surface feebly impressed along the suture posteriorly, with very sparse punctures, generally small but varying in size suturally, becoming coarse but still sparse laterally, confused throughout; abdomen densely, rugosely punctured. Length 11.0 mm.; width 5.22 mm. (♀). Nevada (Reno).

bifossiceps n. sp.

Cephalic grooves not extending to the frontal margin.....3

3—Form stout, convex, polished, blackish-piceous throughout, the short recumbent hairs of the anterior parts more noticeable than

usual; head coarsely, subevenly and rather closely punctured; prothorax less transverse than in *bifossiceps*, two-fifths wider than long, subsimilar in form, the sides evenly, feebly arcuate from above, the apex very feebly sinuate throughout but only margined laterally, the angles slightly obtuse and bluntly rounded, the basal angles right and very slightly prominent, the punctures coarse and somewhat sparse throughout the length medially, gradually still coarser but equally sparse laterally, becoming close and smaller in the feeble sublateral basal impressions and near the side margins; scutellum rather small, about as long as wide, ogival; elytra widest rather behind the middle, gradually somewhat acutely ogival behind, the sides broadly arcuate, becoming more strongly rounded near the very obtusely subangulate humeri, which are but little exposed basally, the surface impressed within the humeral callus and in two or three shallow sutural grooves posteriorly, rather coarsely, unevenly, sparsely punctured suturally, but little more coarsely though less sparsely laterally; abdomen densely, rugosely punctured medially. Length 11.2 mm.; width 5.2 mm. (♀). Utah (Chadbourne's Ranch), — H. F. Wickham.....**proba** n. sp.

Form more slender, elongate-oval, polished, dark rufo-piceous throughout; head not closely punctured, very coarsely medially, less coarsely toward the sides and apex; prothorax transverse, nearly one-half wider than long, the apex fully three-fourths as wide as the base, subtruncate, being only just visibly though evenly sinuate, the angles right but only slightly blunt, not in the least anteriorly produced or prominent, the sides very feebly arcuate, becoming slightly sinuate apically and straight or subsinuate near the basal angles, which are right and not at all rounded; surface finely, very sparsely punctate medially, less finely and more closely apically, very coarsely but sparsely at about lateral fourth, except less coarsely and more closely at apex and in the basal impression and also densely near the sides; scutellum ogival, nearly as long as wide; elytra (♂) fully three-fourths longer than wide, gradually acutely ogival behind, the sides feebly arcuate, scarcely more rounding at base, the humeral callus strong, the punctures strong but sparse suturally, somewhat coarse but not much closer laterally, confused, the surface not impressed except feebly near the suture at apex; abdomen unusually coarsely punctate and not very rugose, the punctures close but somewhat separated medially. Length 10.0 mm.; width 4.3 mm. (♂). Utah (St. George), — H. F. Wickham.....**punctiventris** n. sp.

Form rather stout, larger, very convex, elongate-oval, highly polished, castaneous in color; head coarsely, rather sparsely punctured medially, less coarsely and rather closely anteriorly, the epistoma deflexed, moderate, rounded; prothorax somewhat less than one-half wider than long, moderately narrowed from the base, the sides feebly arcuate, becoming broadly and very slightly sinuate

near base and apex, the basal angles acute and somewhat everted, the apical obtuse and not prominent but not rounded, the apex distinctly and evenly sinuate; surface coarsely but sparsely punctate toward the middle, with a smooth line obliterated anteriorly, very coarsely, more closely so laterally but more finely toward the feeble basal impression near each side and also less coarsely, densely along the sides; elytra fully three times as long as the prothorax and nearly a third wider, rather rapidly ogival in about apical third, the sides arcuate, scarcely more strongly so toward the humeri, which are obtusely subangulate, rounded and slightly exposed basally, the callus long and distinct; surface without impressed lines, the punctures very coarse, rather sparse and confused throughout, smaller and closer near the sides; abdomen shining, coarsely, rather densely punctate medially, more sparsely on the first segment. Length 11.0-12.0 mm.; width 4.75-5.1 mm. Locality not recorded, but probably Utah,—H. F. Wickham.

perpolita n. sp.

- 4—Elytra with distinctly though feebly impressed lines of aggregated coarser punctures. Body elongate-oval, convex, polished, pale brownish-testaceous in color throughout, with very small, sparse and decumbent fulvous hairs; head coarsely, sparsely punctate, more closely toward the eyes and anteriorly, the occiput, concealed by the prothorax, finely, closely punctured as usual, the epistoma broadly and obtusely triangular; prothorax not very transverse, about a third wider than long, the apex nearly four-fifths as wide as the base, evenly though very feebly sinuate, the angles slightly obtuse, not rounded but not at all prominent, the sides very feebly arcuate, becoming straight or subsinuate near apex and base, the basal angles right, not prominent, the surface with moderate and very sparse impressed punctures, becoming coarse and as a rule closer laterally and but little less coarse and very close near the sides; scutellum ogival, about as long as wide; elytra with rather strongly, evenly arcuate sides, gradually acutely ogival posteriorly, strongly impressed along the suture toward tip, coarsely, sparsely and confusedly punctured, the punctures but little coarser or closer but more uneven and with some fine punctures on the interstices laterally, the series throughout rather distinct; abdomen very finely, closely punctured and dull medially and with more evident pubescence throughout than on the upper surface. Length 10.3 mm.; width 4.2-4.65 mm. (♂ and ♀). Texas (near El Paso).

subseriata n. sp.

Elytra with broadly and feebly impressed lines, in which coarser punctures are aggregated even more closely and more conspicuously than in *subseriata*. Body much stouter and larger in size, blackish-castaneous, shining, strongly convex, broadly ovoidal; head coarsely and sparsely punctured, less coarsely and more closely toward the eyes and front but not at all densely, the epistomal lobe moderate, ogivally rounded; prothorax somewhat less than one-

half wider than long, moderately narrowed from the base, the sides feebly arcuate, becoming straight in basal fourth and near the apex, the basal angles acute and not at all blunt but not everted, the apical but little more than right, not rounded and not prominent, the apex evenly and distinctly sinuate; surface unevenly sculptured as usual, with a smooth subentire median line, the punctures rather coarse and very sparse centrally, closer near apex and base, becoming very coarse and close-set laterally, except that they are dense and less coarse near the base at each side and along the lateral margin; elytra distinctly more than three times as long as the prothorax and almost one-half wider, rapidly acutely ogival, with the sides less arcuate than usual, in about apical third, the sides arcuate, the humeri subangulate and slightly exposed basally, the callus elongate but moderate; surface widest rather behind the middle, sparsely and moderately punctate between the impressed lines of aggregated coarse punctures, the sculpture similar throughout the width; abdomen finely, densely punctate. Length 11.0 mm.; width 5.0 mm. Arizona (San Bernardino Ranch, Cochise Co.), — F. H. Snow.....**snowi** n. sp.

- Elytra without impressed lines on the disk and with confused punctuation throughout5
 5 — Apical angles of the prothorax right or obtuse, not prominent...6
 Apical angles acute, anteriorly prominent and somewhat everted...13
 6 — Basal angles of the prothorax right, not at all rounded but neither everted nor prominent.....7
 Basal angles strongly everted, acute and obliquely prominent.....12
 7 — Head coarsely punctured.....8
 Head finely and very sparsely punctured.....11
 8 — Body more or less clear, though dark piceo-testaceous in color throughout9
 Body piceous-black in color, small in size.....10
 9 — Form rather narrowly elongate-oval, polished, subglabrous; head very sparsely punctured even toward the sides; prothorax about two-fifths wider than long, the apex fully three-fourths as wide as the base, evenly though very feebly sinuate, the angles slightly more than right, not at all rounded, not at all prominent, the sides feebly arcuate, straight near the apex and base, the surface unusually feebly convex, even, the basal impressions near the sides at the basal margin very short and extending along the basal sinuses, the punctures fine and very sparse throughout the length medially, becoming only moderately coarse but less sparse near lateral fifth and again small and close-set near the sides; scutellum evidently wider than long, ogival behind; elytra gradually narrowed posteriorly and narrowly rounded at tip, the sides feebly arcuate, gradually more rounded toward base, the humeri not exposed at base, with the callus small though pronounced, the impression within it feeble, the surface with the usual two or three feebly

impressed sutural lines toward tip, with moderately coarse, sparse and impressed punctures, becoming but little larger, only slightly less sparse and, as usual, more shallow and less impressed or more sharply defined laterally; abdomen with only moderately fine, dense punctures and minutely rugulose and but slightly shining medially. Length 10.3-10.4 mm.; width 4.2-4.3 mm. Western Arizona. [= *Epitragus pruinosus* Horn, — California (Owen's Valley)]..... **pruinosa** Horn

Form stouter, very convex, highly polished, darker in color and more properly deep rufo-piceous, the minute yellowish hairs inconspicuous; head moderately sparsely punctured, closely so laterally and apically; prothorax more transverse, very nearly one-half wider than long, the apex three-fourths as wide as the base, evenly though very feebly sinuate, the angles evidently more than right and somewhat blunt, the sides nearly as in *pruinosa*, the surface broadly convex, with the sublateral basal impressions very feeble though having notably less coarse, closer punctuation, the punctures only moderately small, strongly impressed and rather sparse, becoming very coarse, conspicuous and rather close-set near lateral sixth and again much smaller and dense very near the sides, the disk with an oblong irregular impunctate space at the middle of the length on each side near lateral fourth and another on the median line near the base; scutellum wider than long; elytra widest rather behind the middle, obese, somewhat rapidly acutely ogival behind, the sides feebly arcuate to the obtuse humeri, which are not much exposed, the callus moderate and elongate, the surface somewhat uneven, with the punctures rather coarse, very sparse, becoming still coarser but less sparse laterally; under surface polished as usual but with the entire abdomen strongly, moderately finely, very densely punctured and opaque. Length 11.0 mm.; width 4.8 mm. (♀). New Mexico (Deming), — H. F. Wickham.....**densiventris** n. sp.

Form very moderately stout, shining, the elytra alutaceous posteriorly, dark brownish-testaceous; head coarsely, sparsely punctured, less sparsely toward the eyes and front, the punctures impressed; prothorax two-fifths wider than long, the apex four-fifths as wide as the base, subtruncate, being only just visibly sinuate, the angles slightly obtuse but not at all rounded, the sides distinctly, subevenly arcuate, becoming straight only toward base, the surface not impressed but with smaller, though sparse, punctures toward base near lateral fifth, the punctures rather fine and very sparse throughout medially, becoming only moderately coarse but sparse laterally and less coarse, close though distinctly separated near the sides; scutellum moderate, wider than long, broadly ogival or angulate behind; elytra with feebly arcuate sides, gradually more arcuate and acutely ogival posteriorly, the humeri but little exposed at base, with the callus elongate and distinct, the punctures fine and very sparse, becoming only a little less fine and still sparse

laterally, the sutural impressions toward tip feeble; abdomen finely, closely punctate and opaque. Length 9.5 mm.; width 4.3 mm. Arizona (near Tucson).....**contaminans** n. sp.

- 10 — Body small, narrowly fusiform, strongly convex, polished, scarcely duller behind; head as in *contaminans* but with the deflexed tip of the epistoma more obtusely rounded and the sculpture less coarse; prothorax rather less than two-fifths wider than long, the apex barely three-fourths as wide as the base, evenly and feebly though distinctly sinuate, with the angles obtuse and blunt, the sides rather strongly arcuate at apical third, becoming more converging and straight thence to the apex, straight posteriorly to the basal angles; surface not impressed though with close and smaller punctures basally near the sides and with a pronounced fine groove along the basal margin, except medially, the punctures impressed, only moderately fine but sparse medially, becoming coarser and closer laterally and dense near the sides, the disk with a small impunctate area before the middle near each outer fourth and another on the median line near the base, somewhat as in *densiventris*, the scutellum and elytra nearly as in *contaminans*, the former larger, the latter more irregular in surface, with the punctures coarser and more widely impressed though almost as sparse, but little coarser or less sparse laterally, the humeri more rounded and not exposed at base; abdomen finely, densely punctate and opaque but with the second segment, in the unique type, more elevated than the others, less densely and more coarsely punctate and more shining, — probably an abnormality. Length 9.0 mm.; width 4.0 mm. Texas (El Paso).....**amplexa** n. sp.

- 11 — Form rather stout, oval, moderately convex, polished throughout, dark rufo-castaneous in color, the minute hairs inconspicuous; head with small, very remote punctures, becoming a little larger and less sparse in the intra-carinal depressions, rather close on the epistoma; prothorax transverse, one-half wider than long, the apex three-fourths as wide as the base, evenly and feebly but perceptibly sinuate, with the angles but little more than right and slightly blunt, the sides feebly, subevenly arcuate to the apical angles, becoming straight toward base, the punctures fine and very sparse medially, then, separated by a longitudinal impunctate area, becoming coarse and less sparse to the upper part of the shallow lateral declivity, on which the punctures are rather coarse and close-set; scutellum well developed, tumid, wider than long, broadly angulate behind; elytra slightly widest behind the middle, rather rapidly and acutely ogival, with the surface moderately declivous, behind, the sides broadly arcuate, a little more rounded basally, the humeri very narrowly exposed at base, with the callus strong, the surface even, coarsely, sparsely punctured, not more coarsely and but little less sparsely, the punctures more uneven in size with smaller punctures intermingled, laterally; abdomen only moderately finely, densely and strongly punctate and feebly shining. Length 11.0 mm.; width 4.75 mm. Arizona (Tucson), — H. F. Wickham**sublæviceps** n. sp.

12 — Form stout, suboblong-oval, convex, shining, glabrous, dark brownish-testaceous in color; head coarsely, very regularly and rather closely punctured, the punctures separated by nearly twice their own diameters throughout though smaller anteriorly; prothorax nearly one-half wider than long, the apex fully three-fourths as wide as the base, evenly and very distinctly sinuate, the angles right, not blunt and very distinct, in fact subprominent, the sides feebly arcuate, becoming straight for a short distance anteriorly and broadly sinuate toward base, the basal angles broadly though feebly everted, acute and prominent, the punctures rather coarse and sparse, becoming very coarse but well separated laterally, except in the feeble basal impressions, where they are less coarse and closer and also on the flanks, where they are rather crowded; scutellum moderate; elytra parallel, with broadly and evenly arcuate sides to the base, gradually rather obtusely ogival posteriorly, the humeral callus long and strong, the surface broadly, strongly impressed at the suture near the apex, rather coarsely, sparsely punctate, almost similarly so laterally, except that the punctures become more perforate, less impressed and somewhat shallower; abdomen finely, very densely punctate and rather dull. Length 11.0 mm.; width 4.9 mm. Arizona (Cochise Co., — San Bernardino Ranch), — F. H. Snow..... *angulata* n. sp.

13 — Body elongate, fusiform, moderately stout, convex, the feebly fulvous hairs longer than usual and rather conspicuous though sparse, castaneous, the elytra paler and more testaceous; head not very coarsely and very unevenly punctured, very sparsely medially, closely anteriorly and toward the eyes; prothorax less transverse, only about a third wider than long, the apex fully three-fourths as wide as the base, evenly and very distinctly sinuate, with the angles somewhat acute, not blunt and decidedly prominent though not prolonged, the sides very feebly, evenly arcuate, scarcely becoming straight near the basal angles though distinctly sinuate behind the apical, the surface feebly, evenly convex transversely, finely, sparsely punctate, gradually coarsely and less sparsely so laterally, becoming less coarsely toward and in the scarcely visible basal impressions and smaller and crowded near the sides; scutellum moderate, nearly as long as wide, flat and ogival; elytra rather elongate, very gradually and arcuately narrowed and acute posteriorly, the sides broadly arcuate, but little more strongly so basally, where the humeral callus is strong and not much elongated, the surface distinctly impressed along the suture posteriorly, very finely, remotely punctured throughout, but little less sparsely toward the sides; abdomen moderately finely, densely but deeply punctate and dull, the basal segment, as usual, less densely, more coarsely so and more shining. Length 11.5 mm.; width 4.72 mm. California (southern).

californica n. sp.

The species resemble each other to superficial view very much,

but the sculpture of the abdomen is sufficiently diversified to afford recognizable specific characters, and this, with modifications in the form of the prothoracic apex and angles, general form of the body and sculpture of the upper surface, will probably lead to their identification with some careful study. I find that it conduces greatly to accuracy in identification, to have clean and well prepared specimens, mounted carefully, so that the axial plane of the body shall be horizontal. *Metopoloba* is, in all probability, confined to the northern parts of the Sonoran faunal province, not extending far into Mexico.

Pechalius n. gen.

In its short and broadly oval form, marked pubescence and complete absence of supra-orbital carinæ, this genus would seem to be somewhat transitional between the genera that precede and *Epitragodes* and *Schanicus*, which follow, but this appearance is in great part superficial, for in the produced prosternum, deeply received within an abrupt and profound mesosternal excavation and in the basally broadened form of the prothorax, it is undoubtedly a normal member of the *Lobometopon* group. The eyes are flattened and finely faceted, the mandibles squarely truncate at tip, with the apical smooth part abruptly delimited from the punctate basal part by a feebly impressed transverse line, the right with the usual dorsal tooth clasping the labrum. The upper line of the epipleuræ does not quite attain the sutural angles, ending at a very short distance therefrom in a feeble and scarcely noticeable thickening, the surface thence sloping rapidly to the angles. The tarsi show that the genus is really isolated and not related, as might be conjectured from the form of the elytral apices and the conspicuous vestiture, to the subgenus *Epitragoma* of *Lobometopon*, for here there is no trace of fine pubescence forming pads or otherwise distributed on any of the tarsi, all of which have the lower surface covered sparsely with short coarse spines. The type and only known species may be described as follows:—

Body broadly oval, very convex, black, polished, with a somewhat bright bronze lustre, the vestiture decumbent, rather long, consisting of arcuate whitish, somewhat matted hairs, forming obscure vittæ on the elytra; head rather coarsely and closely but unevenly

punctured, the epistoma broadly rounded, the lateral lobes small, strongly rounded; prothorax large, one-half wider than long, the apex barely two-thirds as wide as the base, transverse, with the angles gradually projecting anteriorly, prominent and acute but not blunt or narrowly prolonged, the sides almost straight and feebly converging from the right and unrounded basal angles for more than half the length, then broadly, rather strongly rounding and converging to the apical angles, the surface very obsoletely impressed near each side of the base, evenly and strongly convex, very finely and sparsely punctate, the punctures but little larger and still sparse laterally and more crowded along the sides; scutellum as long as wide, ogival, hairy; elytra rather abruptly and strongly, arcuately narrowed behind to the obtusely ogival tip, the sides parallel and broadly, evenly arcuate to the obtuse humeri, which are not evidently exposed at base and with the callus small but distinct, the surface smooth, without impressed lines even apically, very finely punctate, somewhat closely so laterally and in broad alternately closer and sparser longitudinal lines thence to the suture; abdomen more densely pubescent laterally, finely and strongly, rather closely punctate and shining medially. Length 9.4 mm.; width 4.4 mm. Texas (Marfa),—H. F. Wickham.....*subvittatus* n. sp.

I have before me but a single specimen of undetermined sex.

Epitragodes Csy.

This is one of the few Epitragid genera peculiar to the Caribbean faunal province. It is composed of moderate or small, oval and convex species, having coarse and conspicuous decumbent and irregularly disposed pale pubescence and the elytra gradually narrowed posteriorly to the notably acute apex. The genus is distinctly intermediate between the preceding genera, with a deep mesosternal excavation receiving the prosternum, and those which follow, having no prosternal projection or mesosternal impression, for here the prosternum is narrowly and briefly produced posteriorly behind the coxæ and the mesosternum is tumid and with a more or less feeble concavity, not however receiving the prosternum, which never attains the impression, these characters being plainly degradational or vestigial in nature. The mandibles are rapidly narrowed and polished toward their truncate apices, deeply excavated beneath toward base or strongly arcuate along the external line, and have the tooth of the right mandible, clasping the labrum, unusually developed, the left mandible tumid above and sometimes sub-

dentate. The eyes are well developed, more convex than in the preceding genus or *Lobometopon* and less finely faceted, though only moderately prominent and, as in *Pechalius*, without vestige of supra-orbital carinæ. The head is relatively smaller than in any of the preceding genera, with large, angulate or strongly ogival epistomal lobe, the prothorax narrowed and deeply sinuate at apex, with acute angles and also somewhat narrowed toward base, the elytral humeri being evidently exposed basally. The upper line of the epipleuræ attains the very acute sutural angles, becoming more posteriorly prominent than the lower margin, and the tarsi have dense pads of fine pale pubescence beneath, the posterior slender, with the fourth joint gradually thicker from base to apex, the claws strongly arcuate and stout. We have a number of species in our Floridian region as follows:—

- Mesosternum rather deeply and very distinctly impressed.....2
 Mesosternum equally tumid but with scarcely a vestige of impression..7
 2 — Lateral lobes of the front very short, obtuse and inconspicuous...3
 Lateral lobes slightly prominent and very narrowly rounded.....6
 3 — Pronotum with feeble impressions at base near lateral fifth or sixth; femora minutely and sparsely punctate.....4
 Pronotum without very evident basal impressions; size small; femora less finely but rather sparsely and strongly punctured.....5
 4 — Body larger in size, elongate, fusoid, very acutely and gradually pointed behind, dark piceous, the legs and antennæ dark rufous, polished, the pubescence long, yellowish-white, sparse anteriorly, disposed in small condensed patches which are arranged linearly on the elytra; head sparsely punctate, very nearly as wide as the distance between the thoracic angles, which are acute and sharp but not prolonged; prothorax barely one-half wider than long, widest just before the middle, the sides rounded, converging anteriorly, feebly converging and nearly straight or feebly sinuate to the obtuse but not blunt basal angles, the apex deeply sinuate, barely three-fifths as wide as the base, the surface convex, finely, sparsely punctured medially, less finely, rather closely anteriorly, sparsely but rather coarsely laterally, the punctures attended by short carinæ near lateral fourth to sixth, then close and slightly rough to the sides, the basal impressions very small and adjacent to the hind margin; scutellum small, as long as wide, ogival behind; elytra two-thirds longer than wide, the sides broadly, evenly arcuate to the obtusely rounded humeri, which are evidently exposed basally, with the callus small and feeble, the punctures moderately large, close-set in even series which become

feebly impressed near the suture, the intervals with punctures of the same size very unevenly disposed, forming large areas of condensation and others which are wholly impunctate; abdomen sparsely pubescent, smooth, polished, minutely and sparsely punctured medially. Length 9.8 mm.; width 3.92 mm. (♂). Florida. [= *Epitragus tomentosus* Lec.,—Florida and Georgia].

tomentosus Lec.

Body nearly similar but much smaller, paler, rufo-piceous, the legs and antennæ pale brownish-rufous, polished, with a feeble æneous lustre on the elytra; head small, much narrower than the space between the thoracic angles; prothorax as in *tomentosus* but shorter, fully three-fourths wider than long, the apex nearly three-fourths as wide as the base, the punctures subeven in size and, on the whole, closer and much more conspicuous than in *tomentosus*, those near lateral fifth not definitely cariniferous, the basal impressions larger and extending some distance from the basal margin; scutellum similar; elytra relatively very elongate, almost similar in form, nearly four times as long as the prothorax, with the humeri more widely exposed at base, the sculpture similar but finer, the abdomen nearly similar. Length 7.8 mm.; width 3.4 mm. (♀). Florida (locality unrecorded).

debilicollis n. sp.

5 — Form rather stout, strongly convex, polished, scarcely with metallic lustre, very dark piceous, the tibiæ, tarsi and antennæ paler, rufous; pubescence white, disposed nearly as in *tomentosus*; head sparsely punctured, very nearly as wide as the space between the acute thoracic angles; prothorax unusually elongate, barely a third wider than long, in form nearly as in *tomentosus*, the surface with moderately small, very sparse impressed punctures medially, sensibly closer anteriorly, rather coarse, closer and strongly cariniferous near lateral fourth, then, separated by more or less impunctate spaces, less coarse though rather close, elongate and subcariniferous to the sides; scutellum slightly wider than long, rounded behind; elytra but little more than one-half longer than wide, widest slightly behind the middle, where they are not quite one-half wider than the prothorax, slightly more than three times as long as the latter, somewhat rapidly, acutely ogival behind, the sides broadly arcuate, the humeri obtuse, well exposed at base, the surface sculptured nearly as in *tomentosus* but with the series more or less interrupted and wholly unimpressed toward the suture, the intervals broadly impressed laterally; abdomen minutely, rather sparsely punctured medially, very smooth. Length 7.5 mm.; width 3.3 mm. (♂). Florida (Marion Co.).

pardalis n. sp.

Form nearly similar but less obese, paler, piceo-rufous, polished, the elytra with feeble cupreous lustre, the pubescence white, disposed nearly as in *pardalis* but with the condensed patches of the elytra smaller; head small, much narrower than the space between the

thoracic angles; prothorax more transverse than in *pardalis*, two-fifths wider than long, similar in general form but with the basal angles somewhat everted and more prominent, the surface similarly sculptured but with the median impunctate line narrower, more definite and entire, just visibly bi-impressed toward base; scutellum shorter, much wider than long, broadly ogival behind; elytra nearly similar but narrower and with the obtusely rounded humeri distinctly less exposed at base, the sculpture nearly similar but finer; abdomen finely though distinctly, rather sparsely punctured medially. Length 7.3 mm.; width 3.1 mm. (♂). Florida (Marion Co.)..... *cuprascens* n. sp.

- 6—Form stout, convex, dark piceo-rufous in color, the legs not paler, shining but without much metallic lustre, the pubescence pale yellowish, disposed as in the preceding species; head rather sparsely but not very coarsely punctured, much narrower than the space between the thoracic angles; prothorax large, not quite one-half wider than long, formed nearly as in *tomentosus* but widest more posteriorly, somewhat behind the middle, the deeply sinuate apex two-thirds as wide as the base, the surface unimpressed, strongly convex, unusually punctured, the punctures large, impressed and rather close medially, becoming coarse, strongly cariniferous and dense laterally; scutellum wider than long; elytra but little more than three times as long as the prothorax and a third wider, gradually narrowed and very acute posteriorly, the humeri only moderately exposed at base, the sculpture nearly as in the preceding species but with the series toward the suture much more irregular, the first interval almost entirely punctate, especially so and closely, entirely obliterating the series, toward base; abdomen with the punctures not very fine, deep and very distinct, only moderately sparse medially, with the surface not smooth as usual but rugulose though shining; femora coarsely, deeply and very conspicuously punctured. Length 9.0 mm; width 3.9 mm. (♀). Florida (Lake Worth)... *floridanus* n. sp.
- 7—Body stout, oblong-fusoid, rather abruptly narrowed but acutely pointed behind, dark rufo-piceous, the legs and antennæ scarcely paler, polished, the elytra with very feeble æneous lustre; pubescence white, disposed as usual; head small, with the lateral lobes of the front not prominent, much narrower than the space between the acute thoracic angles; prothorax larger than usual, one-half wider than long, formed as usual, widest at the middle, the surface evenly convex, not impressed, the punctures strongly impressed and sparse, becoming not much larger but closer though not dense laterally, sparsest near lateral fifth or sixth, the median impunctate line not extending to the apex; scutellum small, as long as wide, evenly ogival; elytra one-half longer than wide, barely three times as long as the prothorax, and, behind the middle, about a fourth wider, the sides feebly arcuate, the humeri very obtusely rounded and but little exposed at base, the

sculpture nearly as in *tomentosus* but with the series broadly and distinctly impressed toward the suture; abdomen feebly rugulose but shining, strongly, not very finely but sparsely punctured medially; femora moderately coarsely, sparsely punctured, the decumbent hairs borne by the punctures whiter, coarser and more conspicuous than usual; met-episterna finely punctured throughout. Length 8.4 mm.; width 3.9 mm. (♀). Florida (Capron).

obesulus n. sp.

Body unusually narrow, strongly convex, dark piceo-rufous, the anterior parts more blackish as usual, the legs and antennæ not paler, polished, with the faintest opalescent lustre on the elytra; pubescence whitish, distributed as usual, the dense patches on the elytra very small, wanting near the suture; head nearly as in *obesulus*, distinctly narrower than the interangular space of the prothorax, the latter scarcely two-fifths wider than long, formed as in the preceding species, widest at the middle, the punctures small and sparse, denser near the apex, rather closer but not much larger and nearly simple laterally, with the usual less punctate regions near lateral fifth; scutellum small, as long as wide, ogival at tip; elytra three and one-half times as long as the prothorax and, near the middle, about a third wider, gradually acute posteriorly, the sides broadly arcuate, the humeri strongly rounding to the thoracic base and not much exposed basally; sculpture nearly as in *obesulus*, the punctures finer and the series toward the suture evidently impressed; abdomen smooth, finely, inconspicuously punctate; met-episterna punctured only in inner half; femora rather finely punctured. Length 7.0 mm.; width 3.1 mm. (♂ ?). Florida (Cedar Keys).....*macilentus* n. sp.

The sexual characters in this genus are very puzzling, judging from certain accidentally exposed portions of the œdeagus. In the male type of *pardalis*, for example, there is visible, projecting to the left from the crevice between the elytral tip and last ventral, a long and very slender process, not thicker than a hair, with its apex very briefly curved and falciform and extremely aciculate. On examining the insect from the rear, in the axial line of the body, the hair-like process seems to be the prolongation of a corneous piece, not unlike the ordinary pointed intromittent organ frequently protruded in the Epitragini and Eurymetoponini, except that here, instead of projecting in the axial line and curving upward, it lies transversely, with the hair-like appendage projecting to the left, as stated, when viewed from above. In the type of *cuprascens*, there is a similar hair-like process projecting likewise to the left, but shorter, with its apex strongly and abruptly curved and very acutely pointed or

spiniform, and its inner edge is occupied by a very thin flat fin-like semi-membranous keel throughout the length. I therefore regard the types of both of these species as male, and the differences in the size of the head, elongation of the prothorax and nature of the elytral sculpture will at once distinguish them, although they appear to come from nearly the same locality. The description and measurements of *cuprascens* are taken from the male alone, but the female, represented also by a single specimen, does not differ greatly, having the form a trifle stouter, the prothorax more transverse and the head relatively still smaller. The female sexual characters do not seem to be peculiar, as seen in the type of *floridanus*, the only one in which the female characters are exposed.

None of the three Central American species of *Schœnicus*, with posteriorly projecting prosternum, can apparently be included in this genus, as I at first supposed, and they will constitute one or two distinct genera, one of which has been named *Hemasodes* on page 378 of this revision.

Phegoneus n. gen.

In general facies this genus is very similar to *Lobomctopon*, being evenly fusiform and moderately convex, but the prosternum is abruptly truncate at the hind margin of the coxæ and the mesosternum, although tumid between the coxæ, is wholly devoid of impression on its anterior declivity. It appears to replace *Schœnicus* in Mexico and Central America. The epistoma is produced in a large subangulate lobe, the lateral lobes almost undifferentiated, the mandibles as in *Lobomctopon*, the right with a dorsal porrect tooth clasping the retractile labrum, the left without tooth, and they are gradually less punctate toward tip. The eyes are flattened and finely faceted, with very fine and feeble supra-orbital carinæ, the prothorax rounded at the sides, narrowed in front and frequently also toward base, with the apex more or less sinuate and the angles not very prominent, although generally not rounded. The scutellum is small and about as long as wide as a rule; the upper line of the epipleuræ attains the acute sutural angles and the elytra have well defined series of punctures. The anterior tarsi seem to have

tufts of very coarse and moderately dense hair beneath, in addition to the spinules, but the intermediate and posterior are certainly sparsely spinulose beneath and without finer pubescence of any kind. There are two species before me, which may be described as follows:—

Form moderately stout, elongate-oval, convex, glabrous, deep black throughout the body, legs and antennæ, the surface polished and with a deep greenish-metallic lustre; head small, much less than half as wide as the prothorax, rather coarsely, deeply and moderately closely punctate, more finely and densely toward apex and more finely but not densely toward base; prothorax about two-fifths wider than long, the apex barely three-fifths as wide as the base, with the angles obtuse and slightly blunt, the sides strongly arcuate, converging and less arcuate anteriorly, less converging basally, becoming very feebly sinuate just before the basal angles, which are right, somewhat prominent and not at all blunt; disk widest slightly behind the middle, evenly convex, coarsely, deeply and equally punctate throughout, densely toward the sides but a little more loosely medially, without evident impunctate line; scutellum rounded at apex; elytra gradually narrowed and acute behind, the sides evenly arcuate to the humeri, there becoming a little more strongly rounded to the thoracic base, the surface with unimpressed and even series of rather coarse and somewhat close-set punctures, becoming still coarser laterally, the intervals with smaller but deep and conspicuous punctures, confused or in irregular single series on alternating intervals; abdomen shining, strongly, somewhat sparsely punctured, coarsely toward the sides; basal joint of the hind tarsi much longer than the fourth. Length 9.5 mm.; width 3.8 mm. (♀). Texas. [= *Epitragodes jülichii* Csy.] *jülichii* Csy.

Form narrower, convex, elongate-oval, black throughout, somewhat shining, with strong dark bronze lustre above, brighter and more brassy beneath, glabrous; head a little more than half as wide as the prothorax, moderately coarsely, deeply, densely punctured throughout; prothorax two-fifths wider than long, widest at basal two-fifths, the apex two-thirds as wide as the base, very feebly sinuate, with the angles right and not blunt, the sides rather strongly arcuate posteriorly, converging and straight anteriorly, less converging to the basal angles, which are as in *jülichii*, the surface very evenly and only moderately convex and coarsely, deeply and equally punctured throughout, densely laterally and only a little less densely medially, with an occasional minute puncture intermingled as on the head; scutellum feebly angulate at apex; elytra three times as long as the prothorax, and, at the middle, about a third wider, very gradually and arcuately narrowed posteriorly to the acute apex, the individual apices very minutely, obliquely truncate, the sides evenly, moderately arcuate,

more strongly rounded at base to the prothorax, with series of rather coarse, close-set punctures, feebly impressed except laterally, the interstitial punctures but little smaller than those of the series, confused and closer toward base, sides and apex, sparser centrally; abdomen finely but strongly, sparsely punctured medially, coarsely toward the sides; basal joint of the hind tarsi equal in length to the fourth. Length ♂.6 mm.; width 3.25 mm. Panama (Natá).....* *subæneus* n. sp.

The Mexican and Central American species described by Mr. Champion under the names *Schœnicus salvini*, *viridis*, *rufipes*, *impressus*, *chalybeus*, *difficilis*, *basalis* and *niger*, belong to the present genus and *subæneus* seems to be allied most closely to *salvini*, differing in the form of the prothorax, which is said to be widest at base in that species. The sides of the prothorax in this and the preceding genus are very finely, though evidently, margined, in marked contrast to the following two genera.

Schœnicus Lec.

This genus is a constituent of the Floridian province of the Caribbean faunal region, and is represented at present by a single rather rare species, of comparatively small size and slender form. It is distinguishable at once from *Phegocneus* by the exposed elytral humeri and large and very prominent, coarsely faceted eyes, without vestige of supra-orbital carinæ. The front of the head, epistoma, mandibles, mentum and antennæ are of the usual type in the preceding genera, but the prosternum between the coxæ is narrow and convexly declivous at the hind margin of the coxæ, and the mesosternum is not even tumid, though its surface before the middle coxæ is rapidly and strongly depressed far below the level of the intercoxal part of the mesosternum and metasternum. The anterior and, to a less degree, the middle tarsi, have conspicuous pads of fine dense pubescence beneath, but the posterior are simply spinose and the anterior and middle tibiæ are feebly prolonged and acute at the outer apical angle. The scutellum is moderately developed, as long as wide and strongly ogival; the upper line of the epipleuræ attains the very acute sutural angles. The type and only known species may be outlined as follows:—

Form elongate-suboval, convex, dark brownish-testaceous throughout, shining and without evident metallic lustre, sparsely covered with

short, fine, decumbent, yellowish and inconspicuous pubescence; head small, fully half as wide as the prothorax, slightly wider than long, rather finely and not densely punctate; prothorax small, two-fifths wider than long, the apex feebly sinuato-truncate and fully three-fourths as wide as the base, with the angles very obtuse and somewhat blunt; disk widest at the middle, where the sides are prominently rounded, thence strongly converging and straight apically and but little less converging and straight to the basal angles, which are more than right and very slightly blunt, the sides acute but not at all margined or reflexed; surface convex, feebly impressed on the basal lobe and midway between this and each side, rather finely, very sparsely punctate, becoming less finely but still not very closely laterally, with an impunctate line medially only toward base; elytra fully three-fourths longer than wide, three and one-half times as long as the prothorax, and, at the middle, nearly one-half wider, gradually and arcuately narrowed behind to the ogival apex, the sides broadly arcuate to the rounded humeri, which are transversely exposed at base; surface with one or two impressed lines along the suture, especially behind, finely, sparsely punctate and but little less finely or sparsely toward the sides, the punctures confused, with feebly defined and incomplete series of similar punctures here and there; abdomen finely, sparsely punctate even toward the sides, with similar very short, sparse and inconspicuous hairs. Length 7.5 mm.; width 2.9 mm. Florida (Tampa).....*puberulus* Lec.

The original unique type of *puberulus* was described from Georgia, and is said to have the elytra more than four times as long as the prothorax and with a faint metallic gloss; considering these differences, in connection with the inconspicuous pubescence of the Tampa representative, it is possible that there may be two distinct species involved. The sex of the specimen described above is not determinable.

Conæcus Horn.

In this genus the sides of the prothorax are completely devoid of beaded or reflexed edge, as in *Schanicus*, the edge being obtusely rounded in section and punctate. The body is oval, the head, mandibles, mentum and antennæ as in *Schanicus*, but the eyes are a little less developed and, though similarly coarsely faceted and without trace of supra-orbital carinæ, are much flatter and not at all prominent. The prosternum between the coxæ is convexly declivous behind them as in *Schanicus*, but the intercoxal part of the mesosternum is tumid and its steep anterior slope is more or less deeply impressed as in *Epitragodes*.

The scutellum is small and flat; the upper line of the epipleuræ is obtuse, becoming altogether obliterated for a short distance beginning a little behind the humeri and it attains the very acute sutural angles. The body is more obese, with relatively larger prothorax, more broadly and less abruptly lobed at base than in *Schwanicus*, and the legs are shorter and stouter, the anterior tibiæ more strongly but obtusely prolonged at the external apical angle, the middle tibiæ simply feebly enlarged at apex. The tarsi are rather long, the last joint gradually, strongly enlarged from base to apex, the claws very stout, becoming strongly arcuate toward tip, straight toward base; the tufts of brilliant dense pubescence, clothing all the tarsi beneath, are composed of rather coarser hairs than in *Lobometopon* and some other related genera. This genus is very evidently a normal member of the tribe Epitragini and is wholly out of place among the Gnathosiini, to which it was assigned by its author. We have two species, which may be readily distinguished as follows:—

Form moderately stout, oval, convex, piceo-testaceous in color, still paler beneath, moderately shining, without metallic lustre, covered sparsely with short, decumbent, yellowish hairs, nearly as in *Schwanicus*; head small, less than half as wide as the prothorax, wider than long, coarsely, not very closely punctate, less coarsely, densely so anteriorly, with long and distinct oblique sutures, the epistomal lobe rather short, broadly angulate; prothorax large, nearly one-half wider than long, parallel, the sides more strongly converging toward apex, subevenly and strongly arcuate from the very obtuse but evident basal angles to the less obtuse but slightly blunt and not at all prominent apical angles, the apex feebly sinuate, three-fourths as wide as the base, the surface very evenly but rather feebly convex, not impressed, with moderate, deep, somewhat well separated punctures, becoming a little larger, perforate, elongate, close and tending to unite longitudinally laterally, and, again, very small along the lateral edges, also with an impunctate line obliterated anteriorly; scutellum ogival, as long as wide; elytra gradually and arcuately narrowed behind in almost apical half, the apex very acute, scarcely one-half longer than wide, two and one-half times as long as the prothorax and, before the middle, very slightly wider, the sides parallel, strongly, evenly arcuate to the obtuse humeral angles, which are scarcely at all exposed at base and with wholly obliterated callus, the surface with rather coarse, deep, sparse punctures, nearly equal though smaller near the sides than toward the suture, confused, but, in addition, with even series of slightly larger punctures along the central parts of each elytron; abdomen

coarsely, sparsely but conspicuously punctured. Length 6.2 mm.; width 2.7 mm. Texas..... *ovipennis* Horn

Form nearly similar though a little stouter and less parallel, darker, blackish-piceous, the legs pale rufous, shining, the elytra with feeble metallic lustre; pubescence nearly as in *ovipennis* but still shorter and less evident; head coarsely, rather closely perforato-punctate, with a small vertexal impunctate spot as in *ovipennis*, but with the punctures of the anterior part of the head coarser, more clearly perforate and more separated; prothorax twice as wide as the head, nearly as in *ovipennis* in form and sculpture; scutellum very small, rounded; elytra as in *ovipennis* but broader and, before the middle, fully a fifth wider than the prothorax, the humeri more transversely exposed at base and the punctures coarser, sparser and devoid of serial arrangement, fine along the elytral suture and scarcely so coarse at the sides as elsewhere; abdomen not very coarsely, sparsely punctate, very coarsely so on the first segment, this character being much more evident than in *ovipennis*. Length 6.6 mm.; width 2.92 mm. Texas.

estriatus n. sp.

These species are rather closely allied but the differences in color, sculpture of the anterior parts of the head, and of the entire elytra and basal part of the abdomen and relatively more inflated elytra, with more exposed humeral angles as detailed above, are so evident that there ought to be but little doubt in identifying them. The complete absence of the humeral callus distinguishes this genus from any other of the tribe in our fauna, and the general aspect, shorter elytra and more abbreviated metasternum, indicate a curtailment of the wings, a very exceptional character in the present tribe though probably occurring in *Tydeolus* also.

Tribe TRIOROPHINI.

The various genera of this tribe were assigned to a much more heterogeneous tribe Gnathosiini by Horn, but there are several characters pertaining to the American genera, such as general facies and sculpture, antennal structure and form of the scutellum, that indicate the very decided propriety of separating them as a distinct tribal group, having much more affinity with the purely North American Eurymetoponini, by way of the similarly geographically restricted Trimytini, than it has to the old world Gnathosiini, composed of such genera as *Gnathosia*, *Pachychila*, *Anatolica*, *Tentyria*, *Microdera* and many others.

The latter tribe, it is true, includes a notable diversity, especially of cephalic structure, but the genera have a certain community of habitus which renders them very distinct from our much smaller and more obscure forms. The general differential characters of this and related tribes are sufficiently set forth in the preceding table of tribes. The genera of Triorophini within our faunal limits are the following:—

Epistomal lobe parallel, very prominent, angulate at apex, clasped toward base by the swollen basal parts of the mandibles, the latter stout, each with a strong porrect dorsal tooth clasping the labrum, the right tooth the larger, their apex very unequally bifid, the lower lobe small, the upper larger and acute, becoming obtuse or truncate, their broad outer surface toward base not impressed; eyes transverse, emarginate anteriorly; prothorax margined at the sides; elytra inflated, with abbreviated series of coarse punctures, the epipleuræ narrow, equal throughout; legs long, the tarsi with sparse spinules beneath. [Type *T. laevis* Lec.].....**Triorophus**

Epistomal lobe shorter and wider, broadly angulate, clasped by the upper ridge of the mandibles when closed, the latter more feebly dentate above.....2

2—Epistomal lobe not deflexed.....3

Epistomal lobe strongly deflexed, the line forming the upper margin of the deflexed portion continuous with the sides of the front when viewed from above; elytra oblong-oval, nearly as in *Triphalus*8

3—Tarsi spinose or with sparse spiniform hairs beneath, not pubescent; elytra strongly inflated, subglobose.....4

Tarsi with long, coarse and dense, pale and conspicuous hairy vestiture beneath; body more cylindrical, the elytra less strongly inflated and more oblong-oval.....7

4—Eyes not emarginate anteriorly.....5

Eyes more transverse, emarginated anteriorly by the lateral canthus...6

5—Body glabrous, small in size; mandibles acutely bifid at tip, the lobes unequal, both acutely rounded; epipleuræ intruded upon and narrowed anteriorly by the met-episterna; elytra with more or less confused punctuation. [Type *Stibia ovipennis* Horn].

Micromes

Body strongly pubescent, small in size: mandibles broader and squarely truncate at tip; epipleuræ narrow but subequal in width throughout, the met-episterna narrow; elytra with strongly marked, regular and entire series of punctures. [Type *T. seriatus* n. sp.].

Trichiotes

6—Body rather small, conspicuously pubescent; elytra with more or less confused punctuation; mandibles abruptly narrow beyond

the dorsal teeth as usual, the apex feebly, very unequally bifid, with the upper lobe broad and truncate, nearly as in *Triorophus* but with the outer side concave toward base; epipleurae subequal in width throughout, the met-episterna rather wide.

- [Type *O. villosa* n. sp.]..... **Oxygonodera**
 7 — Body larger than in the three preceding genera, subglabrous to sparsely pubescent, the elytra with even and entire series of conspicuous punctures; eyes emarginate anteriorly, not prominent; mandibles acutely and deeply bifid, the two lobes unequal, both acutely rounded, the outer surface concave at base only; elytra rather less inflexed beneath than usual, the epipleurae broader, especially toward base, the met-episterna moderately narrow. [Type *T. perforatus* Lec.]..... **Triphalus**
 8 — Form nearly as in *Triphalus*, the elytra with similar regular and entire series of coarse and conspicuous punctures; size relatively large as in *Triorophus*; tarsi pubescent and spinose beneath; eyes rounded, feebly emarginate anteriorly; mandibles without tooth on the upper surface—fide Horn. [Type *S. puncticollis* Horn]..... **Stibia**

In the structure of the front this tribe presents the same diversity as the Trimytini or the palæarctic Gnathosiini, comprising forms with prominent quadrate epistoma or a shorter and more triangular form of that part. The last five genera of the above table are related in this respect to *Triorophus*, in precisely the same way that the Mexican *Pescennius*, of Champion, is related to the other genera of the Trimytini, the only very important difference between these two tribes apparently being the strong inferior inflexion of the elytra in Triorophini and the absence of this character in the Trimytini; in the former, also, the prothorax is generally strongly narrowed to the base, while in the latter it is usually narrowed from the base forward, the chief exception being *Chilometopon*. The principal distinguishing character between the two tribes in question and the Eurymetoponini, which is also diversified to a considerable degree in the form of the front, is the fact that in the former the mandibles clasp or rest upon the epistomal lobe when closed, while in the latter tribe they slip entirely under the lobe, but in both cases they grasp and retract the labrum, either by a single tooth or by a tooth on each mandible, the latter being the usual condition in the Triorophini. The present tribe does not seem to include any of the Central American genera recently described by Champion, all of which may be readily assigned either to the Eurymetoponini or Trimytini.

Triorophus Lec.

In this genus the body is much larger than usual in the present tribe, elongate in form, with elongate-oval and strongly inflated hind body, the elytra in the normal species having rows of coarse punctures, becoming obsolete behind. The epistomal lobe is very prominent and is somewhat constricted at base, the bulbiform basal swelling of the mandibles fitting when closed into the reëntrant space at each side, and the surface behind the lobe is strongly swollen, forming a rounded prominence. The eyes are moderate, distinctly convex but not very prominent, and the lateral lobes of the front before them are strongly rounded anteriorly and externally, being, as a general rule, much more prominent than the eyes. There is a single long straight supra-orbital carina, supplemented generally by other shorter inner folds. The antennæ and legs are unusually long and moderately slender, the tarsi cylindric, in great part nude but with a few short stiff spines, more numerous beneath; basal joint of the posterior as long as the last or somewhat longer. The prothorax has an unusually distinct marginal bead at the sides, for in most of the related genera, this bead is in great part wanting, the edge being more or less acute in section but punctured and immarginate. At the apical angles there are several long vibrissæ similar to those noted in the Trimytini. The scutellum is small and transverse, not projecting posteriorly between the elytra, the latter strongly margined at base and with the epipleuræ narrow throughout; the met-episterna are also narrow and subparallel. *Triorophus* is a rather large genus, the species known to me being definable as follows:—

Surface glabrous or nearly so; elytra with regular, coarsely punctured series, obsolete toward tip.2

Surface evidently pubescent or with the prothorax more coarsely and closely sculptured, the elytra at best faintly striato-punctate and sometimes with confused punctuation.....17

2 — Pronotum with a single system of punctures which are always well separated.....3

Pronotum with coarse punctures, mingled with others which are distinct but much smaller; integuments glabrous.....16

3 — Elytra strongly shining, sometimes alutaceous toward tip4

Elytra entirely opaque; form very stout; each puncture bearing a very small hair.....15

- 4 — Elytral series obsolete only slightly behind the middle.....5
 Elytral series longer, obsolete only toward apex.....14
 5 — Antennæ stouter, the tenth joint not or but slightly longer than wide.....6
 Antennæ very slender, the tenth joint very much longer than wide...13
 6 — Head not at all narrower than the prothorax. Body black, shining, the head sparsely punctate, with two supra-orbital folds at each side; prothorax punctate; elytra with rather large punctures, obsolete near the middle, arranged in nine series, the intervals and apex impunctate. Length 8.0 mm. California (Colorado Desert)*lævis* Lec.
 Head evidently narrower than the prothorax in both sexes.....7
 7 — Species of the California fauna. Body stout, strongly convex, very highly polished, black or with a feeble piceous tinge; head very obviously narrower than the prothorax, the frontal tumidity and the occipital region finely, sparsely punctate, the latter not rugose and unusually convex, with one or two acute plicæ near the orbital carinæ; antennæ stout, moderately long; prothorax large, between a fourth and third wider than long, the sides parallel and broadly rounded in about apical half, strongly converging and becoming broadly sinuate toward base, the latter truncate and very heavily beaded, fully four-fifths as wide as the apex, the latter very feebly sinuato-truncate, with the angles somewhat advanced and prominent, the punctures more or less fine and sparse, becoming rather coarse and deep but well separated laterally; elytra elongate-oval, the punctures coarse, arranged in series which are distinctly impressed, becoming obsolete at some distance behind the middle, the intervals with fine but unusually distinct, sparse and confused punctures obsolete toward apex; abdomen impunctate laterally, rather coarsely so toward the middle of the basal segment and distinctly, though finely, on the median parts of the second segment, the sterna and parapleuræ very coarsely but not closely punctate. Male with an elongate-oval, spongy-pubescent spot at the centre of the first ventral segment. Length 7.25-8.0 mm.; width 2.8-3.45 mm. California (Kern Co.)*politus* n. sp.
 Species of the Arizona faunal regions.....8
 8 — Elytra strongly shining throughout.....9
 Elytra evidently alutaceous toward tip.....12
 9 — Male with the pubescent fovea at the centre of the first ventral not impressed, elongate-oval in form.....10
 Male with the pubescent fovea strongly impressed, more rounded...11
 10 — Form rather stout, deep black, polished, glabrous; head finely, sparsely punctate posteriorly, sometimes feebly rugulose and with two or three sharp plicæ near the carinæ; prothorax a fourth to nearly a third wider than long, only moderately narrowed toward

base in basal half, the sides becoming straight and oblique, the apical angles rather prominent and thickened; surface very convex, finely, sparsely punctured, rather coarsely but still not very closely toward the sides; elytra rather short, distinctly less than one-half longer than wide, strongly arcuate at the sides, the serial punctures very coarse, the remainder of the surface finely and sparsely, confusedly and evidently punctate, obsoletely and very minutely toward tip. Length 7.0 mm.; width 2.8 mm. (♂ and ♀). Arizona (locality unrecorded)...**terebratulus** n. sp.

Form more elongate, similar otherwise, the head and prothorax of the male much larger than in the female, the former minutely, sparsely punctured, with the usual two to three acute rugæ near the carinæ; prothorax nearly similar but rather more transverse and more strongly narrowed basally, the sides generally becoming obviously sinuate toward base, the apical angles scarcely thickened and usually not at all prominent, a third to nearly two-fifths wider than long, the punctures almost as in *terebratulus* but finer throughout; elytra oval, more elongate, fully one-half longer than wide, with the immediate apex more prominently produced, the sides arcuate, the punctures of the series, the latter being similarly evidently impressed, much smaller and less conspicuous, the punctuation of the general surface excessively minute, almost wholly obsolete. Length 6.3-7.1 mm.; width 2.6-2.9 mm. (♂ and ♀). Arizona (Congress Junction), — F. H. Snow.

mundulus n. sp.

11 — Body nearly as in *mundulus* throughout, the head almost similar but with the punctures rather more distinct; prothorax nearly as in *terebratulus* and similarly punctate but rather more transverse, shorter in the female than in the male, the apical angles not thickened and not at all prominent; elytra slightly less than one-half longer than wide, oval, with the apex rather prominently produced, the feebly impressed series composed of deeply impressed punctures which are nearly as large and conspicuous as in *terebratulus* and much more so than in *mundulus*, the sparse punctures of the remainder of the surface very minute and only just visible, even toward base, wholly obsolete apically. Length 6.0-6.9 mm.; width 2.6-2.8 mm. (♂ and ♀). Arizona (Riverside), — H. F. Wickham.....**simplex** n. sp.

12 — Form stout, strongly convex, with very minute sparse hairs, deep black as usual; head finely, sparsely punctured and feebly, longitudinally rugulose, with the usual two or three acute folds near the carinæ; prothorax large, about a third wider than long, the sides rounded, converging only in about basal third, the apical angles thickened and evidently prominent, the punctures as in *terebratulus*; elytra short and broadly oval, less than one-half longer than wide, the series but just visibly impressed and composed of widely separated, moderately coarse punctures, smaller than in any of the three preceding species, the punctures of the

remainder of the surface sparse and extremely minute. Length 7.6 mm.; width 3.2 mm. (♀). Arizona.....**gravidulus** n. sp.

Form more elongate, similar in coloration, the very minute hairs even less obvious; head very much narrower than the prothorax, punctured finely and sparsely, with some feeble rugæ and acute juxtacarnal folds as in the preceding species; prothorax large, more transverse, nearly two-fifths wider than long, the sides unusually convergent in about basal half, becoming straight and oblique, with the basal angles formed by the basal bead as usual, the apical angles thickened and prominent, the punctures only moderately small and less sparse than in the preceding species, becoming coarse and separated by much less than their own widths laterally; elytra elongate-oval, fully one-half longer than wide, the base very strongly margined as usual but prolonged anteriorly beyond the arcuate part of the sides, suggesting a broad basal peduncle in a manner not noticeable in any of the preceding species, the punctures of the series only moderately coarse, those of the remainder of the surface minute but evident. Length 8.5 mm.; width 3.2 mm. (♀). Arizona (Riverside),—H. F. Wickham.....**basalis** n. sp.

Form nearly similar to *basalis* but smaller in size, similarly black and glabrous; head and general form almost exactly similar in the sexes, the former punctured and sometimes feebly rugulose as usual; prothorax about a third wider than long, the sides arcuately and moderately converging in about basal half, the apical angles thickened and somewhat prominent, the punctures sparser than in *basalis* and separated laterally by their own widths or more; elytra nearly as in *basalis* in form and sculpture but not produced anteriorly at base. Male with the densely fulvo-pubescent fovea of the basal segment of the abdomen feebly impressed and but little elongated. Length 7.2–7.4 mm.; width 2.8–2.9 mm. (♂ and ♀). Arizona (Benson),—G. W. Dunn.

histrion n. sp.

13 —Body rather stout, strongly convex, black and rather strongly shining throughout, glabrous; head much narrower than the prothorax, minutely, sparsely punctured and smooth, with a single strong acute plica near the carinæ; prothorax nearly two-fifths wider than long, rather strongly and arcuately narrowed behind from near apical third, the apical angles not at all thickened or prominent, the punctures only moderately small, impressed, sparse, becoming moderately coarse, impressed and separated by nearly twice their own widths laterally; elytra one-half longer than wide, oval, the very feebly impressed series composed of moderately coarse punctures, the remainder of the surface very sparsely and minutely punctate, scarcely distinctly so even toward base. Male with a nigro-pubescent abdominal fovea, much smaller than in any of the preceding species, not impressed and elongate-oval. Length 7.7 mm.; width 3.2 mm. (♂). California (San Diego).....**gracilicornis** n. sp.

Body more slender anteriorly, the hind body relatively more strongly inflated, as frequently the case in the female, rufo-piceous in color, shining throughout and glabrous; head finely, sparsely punctured, with about two juxta-carinal folds; prothorax formed nearly as in *gracilicornis* but arcuately narrowed behind only in about basal half, the apical angles not at all thickened or prominent, the punctures not very small and moderately sparse, impressed, becoming unusually coarse and separated by scarcely more than their own widths laterally; elytra more elongate-oval, more than one-half longer than wide, the scarcely at all impressed series composed of moderately coarse, deep punctures which are rather more close-set than usual, the interstitial punctures extremely minute and subobsolete even basally; basal segment of the abdomen even more coarsely and plentifully punctate medially than usual. Length 7.5 mm.; width 3.2 mm. (♀). Arizona.

longicornis n. sp.

14 — Form elongate, convex, shining, the elytra somewhat alutaceous, black, the under surface, legs, head and prothorax more or less rufo-piceous; minute hairs frequently distinct; head rather coarsely and longitudinally, subconfluently punctate, forming rugæ, those near the strong orbital carinæ not more pronounced than the others; antennæ rather long and slender, the tenth joint longer than wide; prothorax a little wider than the head, more distinctly in the female, almost one-half wider than long, moderately and arcuately narrowed behind in rather more than basal half, the apical angles not thickened or prominent, the punctures rather coarse, deep, well separated medially but still coarser, elongate and separated by their own widths but tending to longitudinal coalescence laterally; elytra very elongate-oval, much less inflated than usual, three-fifths longer than wide, the very feebly impressed series composed of moderately coarse, unusually close-set punctures and distinct to within a short distance of the apex, the inner series curving outwardly toward base, where there is sometimes a short post-scutellar series; interstitial punctures small and sparse, confused, sometimes very distinct; abdomen, contrary to the general rule, evenly and rather sparsely but strongly punctured throughout, the pubescent fovea of the first segment (♂) not impressed and moderate in size. Length 6.4–7.3 mm.; width 2.7–2.85 mm. (♂ and ♀). California (Tulare Co.)...*rugiceps* Lec.

Form very stout, large in size, deep black, shining and glabrous throughout, the legs rufo-piceous and the elytra feebly alutaceous posteriorly; head slightly narrower than the prothorax, the anterior tumidity large, strong and punctured as usual, the basal parts convex, very finely, sparsely punctured and smooth, with about two folds near the carinæ; antennæ rather long and slender, the tenth joint slightly elongate; prothorax large, not quite one-half wider than long, inflated at the middle, thence rather strongly narrowed, with the sides becoming sinuate to the base, the an-

terior angles thickened and decidedly prominent, the punctures moderately small and well separated, deep, becoming rather coarse and separated by barely their own widths laterally; elytra strongly inflated, oval, two-fifths longer than wide, with scarcely impressed series of very coarse, deep, moderately close-set punctures, disappearing at about apical fourth, the interstitial punctures minute, sparse and inconspicuous; abdomen minutely, sparsely punctured, the basal segment becoming coarsely punctured only near the coxæ. Length 8.5 mm.; width 3.75 mm. (♀). Texas.
lecontei Csy.

15 — Body very stout, deep black, the legs rufo-piceous, the anterior parts alutaceous, the entire elytra deeply opaque, head much narrower than the prothorax, smooth, minutely, sparsely punctate, with very fine and feeble rugæ near the carinæ, the umbo very large and conspicuous; antennæ moderate, the tenth joint fully as wide as long; prothorax transverse, fully three-fifths wider than long, the sides rounded, becoming strongly convergent and sinuate in only about basal third, the apical angles thickened and very prominent, the punctures fine and moderately separated, becoming moderately coarse and separated by scarcely more than their own widths laterally; elytra very inflated and convex, barely a fourth longer than wide, the unimpressed series composed of moderately coarse, deep and rather widely spaced punctures, continuing to apical fourth or fifth; abdomen dull, minutely, sparsely punctate, the first segment coarsely punctured medially along each side of the median line, except toward apex. Length 7.8 mm.; width 3.6 mm. (♀). Texas *nodiceps* Lec.

16 — Form stout, convex, deep black, the legs and antennæ more or less rufo-piceous, almost glabrous, each puncture with a minute hair, feebly alutaceous, the entire elytra with dull lustre; head smooth, minutely, sparsely punctate, with the umbo large and prominent, the surface without plicæ near the strong orbital carinæ; prothorax much wider than the head, transverse, three-fifths wider than long, the sides inflated, strongly and arcuately converging in basal half, becoming sinuate basally, the anterior angles thickened, acute and very prominent; surface widest at the middle, strongly, closely punctate, very coarsely and more closely so laterally, the punctures mingled everywhere with smaller distinct punctures, rendering the sculpture rather dense throughout; elytra strongly inflated and convex, oval, about two-fifths longer than wide, with unimpressed series of only moderately coarse, widely separated punctures, becoming gradually smaller and disappearing between apical third and fourth, the sparse interstitial punctures extremely minute and scarcely visible; abdomen finely, sparsely punctured, with some coarse punctures on the first segment, where the fusco-pubescent male fovea is unusually small, unimpressed and elongate-oval. Length 6.7 mm.; width 3.25 mm. (♂). Texas (Laredo), — H. F. Wickham.
brevis n. sp.

Form nearly similar but with more inflated elytra and shining, the surface only feebly alutaceous posteriorly, glabrous, very deep black, the legs and antennæ feebly rufo-piceous; head relatively larger, less distinctly narrower than the prothorax, with less elevated umbo and less minute but sparse punctuation, the surface not so smooth and with a single short plica near the carinæ; tenth antennal joint somewhat more elongate, obviously longer than wide; prothorax larger, much less transverse, not quite a third wider than long, less inflated at the sides, the latter parallel and broadly arcuate, becoming moderately strongly convergent and feebly arcuate in about basal half, sinuate very near the angles, the apical angles thickened and prominent though less so than in *brevis*, the punctures very uneven, generally rather well separated medially but becoming closer laterally and composed of coarse and moderately small punctures intermingled; elytra more elongate-oval though scarcely one-half longer than wide, with very feebly impressed series of unusually coarse, deep and less widely spaced punctures, gradually becoming obsolete only at apical fourth or fifth, the lateral series approaching the apex still closer as in *brevis*; abdomen shining, finely, sparsely punctured, the basal segment (♂) having a moderately large, circular and unimpressed fulvo-pubescent fovea, surrounded for some distance on all sides by minute and close-set punctures, this feature being much more obvious than in *brevis*. Length 7.5 mm.; width 3.5 mm. (♂). Texas (El Paso), — G. W. Dunn.
mixtus n. sp.

17 — Color brownish-black, paler beneath, subopaque; head coarsely and densely punctured and longitudinally finely sulcate, the umbo moderately prominent, finely punctured; prothorax slightly broader than long, the sides moderately rounded, the surface convex, coarsely and densely but not confluent punctured, the head and pronotum with sparsely placed short yellow hairs; elytra oval, moderately convex, faintly striato-punctate, the interstices having two rows of very faint punctures, sparsely pubescent, with the short hairs arranged between the rows of larger punctures; prosternum and side-pieces coarsely and densely punctured, the meso- and metasterna very coarsely so, the abdomen finely and sparsely. Length 7.5 mm. Locality not stated.

subpubescens Horn

Color piceous, the form stout; head narrower than the prothorax, aciculate and coarsely punctured, the umbo moderate; prothorax transverse, coarsely and confluent punctate and rugose; elytra rather closely, less finely punctate than usual, but with the punctures scarcely forming series. Length 6.25 mm. California (Vallecito, — near Julian?).....**punctatus** Lec.

The species from *lævis* to *histrion*, in the table, are rather closely allied among themselves and are geologically recent

derivatives of a common stem form, though undoubtedly distinct; *lævis* is defined above from the original diagnosis and is a larger species, with larger head, than any of the allied Arizonian forms; it is confined to the Colorado Desert, from which region I have no material at present. The locality given by LeConte for *rugiceps* is San José, which is certainly a mistake, Tejon being probably intended; it is a widely isolated species, not at all closely allied to any other, if I have properly identified it, constituting a type apart from the others in general form and details of sculpture. I have been forced also to define *subpubescens* and *punctatus* from the original descriptions of LeConte and Horn; they seem to differ very much from the others in pronotal sculpture, and especially in the punctuation of the elytra, and may have to be separated subgenerically; at present they are represented by uniques as far as known to me.

Micromes n. gen.

With this genus begins a series of very small forms, differing radically from *Triorophus* in having the epistomal lobe short, broadly angulate and less fully clasped by the mandibles, the latter being nearly similar in structure but without the bulbous swelling at base and less strongly, though somewhat similarly, toothed above, the left very feebly as usual. They also differ in having the side margins of the prothorax narrowly convex in section but not accentuated by a bead, reflexed or otherwise, being continuously punctured from the upper to the under surface. In the present genus the eyes are variably prominent, coarsely faceted but not anteriorly emarginate, and there is no trace of a supra-orbital carina. The antennæ are slender, moderate in length and of the same general structure as in *Triorophus*, but the met-episterna are wider and intrude somewhat upon the narrow epipleuræ, reducing the width of the latter anteriorly still further. The male sexual characters are precisely as in *Triorophus*, the basal segment of the abdomen having a large central, densely pubescent depression or fovea. The type of *Micromes* was described by Dr. Horn as a *Stibia*, but it is evidently not very closely related to that genus, as shown by general form of the body, type of elytral sculpture and form

of the epistoma. The genus is apparently very restricted in habitat, neither of the species now known occurring far from San Diego in California; the two represented in my cabinet may be defined as follows:—

Form stout, suboval, convex, polished, glabrous, black or piceous-black, rather paler beneath, the legs and antennæ rufo-piceous; head rather small, much narrower than the prothorax, strongly, moderately coarsely and not very densely punctate, the punctures tending to coalesce longitudinally; eyes rather small, extremely convex and prominent; prothorax transverse, not quite twice as wide as long, parallel, widest at the middle, the sides evenly arcuate, the apex broadly sinuate, with the angles scarcely less than right, not rounded but not prominent, the basal angles obtuse though scarcely rounded, the surface strongly convex, deeply, closely punctate, the punctures elongate, small and not dense medially but coarser, dense and somewhat longitudinally coalescent laterally; scutellum small, transverse, extending but little behind the elevated basal margin of the elytra, the latter oval, inflated, about a fourth longer than wide, the sides more strongly rounding toward base, more than three times as long as the prothorax and, at the middle, fully three-fourths wider, not very coarsely or deeply, sparsely punctate, the punctures arranged in feebly defined series, with confusedly and almost equally strongly punctate intervals, the punctures obsolete in about apical fourth; abdomen smooth, almost impunctate except the basal segment, the latter (♂) with a large and somewhat oval central pubescent fovea. Length 3.2-4.1 mm.; width 1.7-2.2 mm. California (San Diego). [= *Stibia ovipennis* Horn].

ovipennis Horn

Form less stout, convex, shining, glabrous, pale piceo-testaceous in color; head small, rounded, rather finely, closely strigilato-punctate, the eyes larger than in *ovipennis* and much less convex, although prominent; prothorax almost similar in form but relatively somewhat smaller and less transverse, more finely, not very densely strigilato-punctate, but little more coarsely so laterally and subevenly throughout; scutellum similar; elytra more elongate-oval, a third longer than wide, about two-thirds wider than the prothorax, sparsely and not coarsely, shallowly punctate, the punctures arranged in unimpressed series, obsolete in about apical two-fifths, the intervals similarly and uniseriately punctate; abdomen very minutely, sparsely punctate, the basal segment (♂) with a large oval pale-pubescent fovea; basal joint of the anterior tarsi shorter than in *ovipennis* and much shorter than the next two combined, the legs more slender. Length 3.2-3.8 mm.; width 1.4-1.8 mm. California (San Diego). [= *Stibia maritima* Csy.].....**maritimus** Csy.

The differences between these two species in the eyes and

relative lengths of the anterior tarsal joints are almost sub-generic. *Maritimus* appears to be much rarer than *ovipennis*, which is rather abundant. The male is distinctly less obese than the female and usually much smaller in size.

Trichiotes n. gen.

With mandibles and epistomal lobe formed as in *Micromes*, the present genus reproduces *Triorophus* in general form and sculpture, but differs from either in being clothed sparsely with very long erect and conspicuous setiform pubescence. The head is nearly as in *Triorophus*, excepting the front and mandibles, the rather prominent and coarsely faceted eyes being bounded above by a short and rather feeble carina; they are transversely oval and are not more than feebly impressed anteriorly by the canthus of the front. The antennæ and legs are rather short and stout, the tarsi notably short, the met-episterna narrow, not intruding upon the epipleuræ, which are narrow though equally wide throughout as in *Triorophus*, and the elytra, similarly, have regular series of coarse punctures. The form of the prothorax is almost exactly as in *Triorophus*, but the flanks are subevenly convex and without trace of beaded or reflexed side-margin, being very obtuse in section. The single species may be described as follows:—

Form rather stout, very strongly convex, shining, clothed throughout with very long erect yellowish-cinereous hairs, not concealing the integuments, serial in arrangement on the elytra and arising from the interstitial punctures, black, the under surface, legs and antennæ more or less paler piceo-rufous; head evidently narrower than the prothorax, rather wider than long, coarsely, somewhat closely and, toward the sides, more or less confluent punctaturogose; prothorax nearly one-half wider than long, parallel, with the sides broadly arcuate anteriorly, becoming strongly and arcuately narrowed in about basal half, the sides sinuate before the acute and minutely prominent basal angles, the apex broadly sinuate, with the angles acute, slightly everted and prominent though not produced; surface very strongly, evenly convex, very coarsely and closely but not confluent punctate; scutellum small, transverse, forming part of the strongly elevated basal margin of the elytra as usual in this tribe; elytra strongly inflated and convex, oval, about a fifth longer than wide, scarcely three times as long as the prothorax and, at the middle, fully two-thirds wider, having each nine regular and broadly impressed entire series of coarse,

perforate, rather close-set punctures, becoming only slightly smaller toward tip, the intervals each with a very uneven series of small setigerous punctures; abdomen shining, rather coarsely but not strongly, moderately closely punctate, the first and second segments in the unique type each with a feeble ridge at each side, curving from the anterior edge posteriorly and inwardly toward the hind margin of the segments. Length 4.8 mm.; width 2.5 mm. Texas (Big Springs), — H. F. Wickham...*seriatus* n. sp.

The general form of this species suggests some of the Otiorynchid genera allied to *Mylacus* and *Sciopithes*. It is impossible to state whether the singular obliquely curved ridges at the sides of the abdomen are sexual or not; there is no trace of a pubescent fovea at the centre of the first segment in the type specimen.

Oxygonodera n. gen.

This genus is also characterized by its conspicuous vestiture of long erect setiform hairs, but the facies is less like that of *Triorophus*. The head is nearly as in *Trichiotes*, the frontal parts being similar, except that the mandibles are stouter and more deeply concave externally toward base, but the antennæ are more slender, with a relatively greater development of the last two joints and the transversely oval, coarsely faceted and moderately prominent eyes are decidedly emarginated by the lateral canthus of the front; the supra-orbital carina is small and inconspicuous though present. The prothorax is, in general terms, transversely parallelogrammic, having a very great development of the anterior angles, which are prolonged as in *Edrotes*, and the sides, though acute in section, are not margined but punctured like the rest of the surface as in the two preceding genera, the scutellum and raised basal margin of the elytra being also similar; the elytral punctuation is even more confused than in *Micromes*, with the narrow epipleuræ as in *Triorophus*, the met-episterna wider as in *Micromes*, but not reducing the width of the epipleuræ. The legs and tarsi are rather short and stout.

A species congeneric with the type of this genus was assigned to *Stibia* by its author, but of course provisionally, as there is but little resemblance between the two genera. *Oxygonodera* is a localized type, like the two preceding, and is peculiar to

the arid regions of the great basin of Utah and perhaps eastern Nevada; the three species may be outlined as follows:—

Base of the prothorax slightly wider than the apex. Form robust, piceous-black, moderately shining, sparsely clothed with moderately long yellowish hairs; head coarsely, densely and subtrigonesely punctured, the epistomal lobe rounded in front; prothorax twice as wide as long, the apical angles acute and very prominent anteriorly, the base slightly arcuate at the middle, feebly sinuate laterally, the hind angles right, the sides very feebly arcuate; surface very convex, with an ante-basal transverse impression, coarsely, deeply and rather densely punctured, becoming somewhat strigosely so laterally; elytra broadly oval, very convex, moderately coarsely but not densely punctured, the punctures with faint tendency to serial arrangement; prothorax beneath very coarsely, deeply and rather densely punctured, the mesosternum less coarsely so, the metasternum with very large deep punctures; abdomen moderately densely punctured; outer margin of the anterior tibiæ slightly spinulose. Length 5.5 mm. Utah. [= *Stibia hispidula* Horn].....**hispidula** Horn

Base of the prothorax slightly narrower than the apex; erect vestiture very long.....2

2 — Body moderately stout, very convex, somewhat piceous-black, the legs and antennæ more rufous, strongly shining, sparsely clothed with very long sparse fulvous hairs; head moderate, wider than long, much narrower than the prothorax; coarsely but not very densely punctate, the punctures elongate and somewhat longitudinally coalescent; epistoma strongly angulate; prothorax not quite twice as wide as long, widest somewhat before the middle, the sides subparallel and feebly, subevenly arcuate, sinuate at the acute and prominent basal angles and feebly subsinuate toward the anteriorly produced and acute apical angles, the apex between the angles transversely truncate, the base very broadly, feebly lobed, without beaded edge, the surface very convex, strongly and transversely impressed before the basal lobe, coarsely, deeply and closely punctured, the punctures elongate and irregularly longitudinally subconfluent, coarser and more anastomosing toward the sides; elytra oblong-oval, moderately inflated, very convex, a fourth longer than wide, between three and four times as long as the prothorax and two-fifths wider at the middle, coarsely, deeply, not very closely and confusedly punctured throughout, rather less coarsely so toward tip; abdomen coarsely, deeply and closely but not confluent punctured throughout. Male with a moderate circular pubescent fovea at the centre of the first ventral segment. Length 4.8–5.2 mm.; width 2.3–2.6 mm. (♂ and ♀). Utah (Marysvale), — H. F. Wickham.....**villosa** n. sp.

Body very stout and convex, oblong-oval, deep black, with dark rufous legs and antennæ, highly polished, the very long and sparse

erect hairs fine and yellowish-cinereous in color; head large, wider than long, narrower than the prothorax, coarsely but not very closely, unevenly punctate, densely and with anastomosing rugæ laterally, the epistoma triangular, with parabolically rounded apex; prothorax more transverse, twice as wide as long, widest toward apex, the base as in *villosa* but more distinctly narrower than the apex, the sides very feebly arcuate; basal angles right, not prominent, the apical perhaps a little less produced and thicker than in *villosa* but very prominent, the remaining characters as in that species, except that the surface between the subbasal impression and basal margin is subimpunctate; elytra nearly similar but broader, barely three times as long as the prothorax and about a fourth wider, still more coarsely, confusedly and equally sparsely punctate; abdomen more coarsely, densely and subconfluently punctate, the male sexual characters similar. Length 5.6 mm.; width 2.8 mm. (♂). Utah (Clear Lake), — H. F. Wickham.....**grandiceps** n. sp.

I do not have an example of *hispidula* before me at present, the above description being by Dr. Horn, but if the language is correct it is distinct from either of the others, notably in its basally broader prothorax, more rounded epistoma and apparently less elongate vestiture. There are probably a number of species still to be discovered but they are individually rare.

The flanks of the elytra have a large deep indentation near basal third in this genus, which remarkable character is phylogenetically the same as the short furrow noted so frequently in the Eurymetoponini.

Tripalus Lec.

The body in this genus is still less inflated posteriorly and more cylindrical than in *Oxygonodera*, and we return to the margined sides of the prothorax characterizing *Triorophus*, but there are some features which indicate a departure in the direction of the Trimytini; the elytra, for example, embrace the sides of the body less widely than in any of the preceding genera and the male has no pubescent fovea on the first ventral. In most of its characters and in general facies, however, it is wholly isolated, the head as in the preceding genus but with the eyes less prominent and in fact but feebly convex, coarsely faceted, well developed and anteriorly emarginate and bounded above by a very fine and feeble carina, the antennæ long in the type species, with the three outer joints larger as in *Triorophus*. The

epistomal lobe is triangular and its sides are obtusely pectinate, somewhat as in the subgenus *Pimalius* of the Trimyini, although there the lobe is approximately semicircular. The prothorax is of peculiar cylindrical form, rectilinearly truncate from side to side anteriorly and very broadly and feebly lobed at base, none of the angles being in the least prominent although not rounded. The elytra have the elevated basal margin and scutellum of the preceding genera, but the epipleuræ are narrow posteriorly, becoming gradually rather wide toward base, the met-episterna moderately narrow, becoming broader anteriorly, the legs rather short and stout, strongly punctate, the tibiæ with two external carinæ separated by a longitudinal groove, and the rather short thick tarsi are densely pubescent, the basal joint of the posterior less elongate than usual and somewhat shorter than the fourth. The genus is peculiar to the warm southern part of the peninsula of Lower California, the two species thus far known being definable as follows:—

Form elongate-subcylindric, the hind body moderately inflated, brownish-testaceous in color throughout, alutaceous in lustre, glabrous, each puncture with a very small and scarcely visible hair entirely within its limits; head coarsely, densely and subconfluently punctate, the antennæ slender, rather longer than the head and prothorax, the latter a fourth wider than long, with the base just visibly wider than the apex, the sides nearly straight, the sides and base beaded, the apical angles right, the basal slightly obtuse; surface cylindrically convex, very coarsely and subconfluently punctate, scarcely more coarsely so laterally; scutellum well developed, transverse, forming part of the raised elytral base; elytra nearly one-half longer than wide, oblong-oval, less than three times as long as the prothorax and, at the middle, about one-half wider, with nine discal, apically impressed, entire and regular series of very coarse, perforate and rather widely spaced punctures; abdomen coarsely and very deeply but somewhat sparsely punctate. Length 7.0 mm.; width 3.12 mm. Lower California.
perforatus Lec.

Form rather more slender, smaller in size, the hind body more abruptly but not more strongly inflated, piceous-black, the legs and antennæ dark rufous; surface rather shining and with distinct but sparse vestiture of short, suberect, somewhat coarse fulvous hairs; head coarsely, very densely punctato-strigose throughout, the antennæ much shorter, not as long as the head and prothorax, the latter more than a fourth wider than long, distinctly wider than the head, with the apex and base equal in

width, widest before the middle, the sides feebly but evidently arcuate, becoming straight or subsinuate toward base, the basal and apical angles both rather more than right, the remaining features almost as in *perforatus*, the punctures, however, even coarser, denser and more coalescent medially, becoming slightly less coarse laterally; scutellum smaller and more projecting and rounded behind; elytra one-half longer than wide, very nearly three times as long as the prothorax and one-half wider, with regular and entire series, which are impressed throughout but more strongly toward apex, of very coarse, perforate, less widely spaced punctures; abdomen very coarsely and deeply but not densely punctate. Length 5.5 mm.; width 2.42 mm. Lower California (San José del Cabo).....*cribricollis* Horn

The unique type of *cribricollis* was described (Proc. Cal. Acad. Sci., V, 1895, p. 251) from Miraflores, but does not seem to differ from the San José specimens, one of which was kindly given me by Mr. Chas. Fuchs, except in the apparently more densely punctate head, and in that the very small sparse punctures of the elytral intervals are scarcely arranged in double series but evidently more confused.

Stibia Horn.

The only marked difference between this genus and *Triphalus* resides in the abruptly deflexed epistomal lobe, but if the mandibles are really without a dorsal tooth, as stated in the original description, it would depart radically, not only from *Triphalus* but from every other genus of the tribe, so that I am disposed to regard this statement as due to an error of observation. The general form and sculpture of the body, eyes and superciliary ridge are nearly as in *Triphalus*. The only species which can enter the genus at present, is one of the largest of the tribe, greatly surpassing *Triphalus* and equaling the largest known forms of *Triorophus*; it may be described as follows:—

Form elongate, black, the legs ferruginous-brown, shining; head coarsely and confluent punctured; prothorax moderately convex, coarsely and densely punctured, one-half wider than long, the sides broadly rounded, with the margin acute, the angles distinct but not prominent, the apex feebly emarginate, the base feebly lobed; elytra convex, elongate, oblong-oval, with nine discal series of strong punctures, one marginal series and a short scutellar row of a few punctures; under surface coarsely and densely punctured. Length 8.0–9.5 mm. Lower California.

puncticollis Horn

The original specimens were taken by Mr. Gabb, and the only one in the collections reported upon by Dr. Horn (Proc. Cal. Acad. Sci., IV, 1894) from San José del Cabo, is said to be somewhat aberrant, having the prothorax less narrowed behind and the striæ better marked, with coarser punctures. The prothorax therefore seems to be narrowed toward base in *puncticollis*, although this is not directly stated by the describer.

Tribe EDROTINI.

This tribe, through the Erodiini, connects the preceding tribes with the remarkably divergent Adesmiini and Craniotini. The prominent unemarginate eyes and very acute and anteriorly prolonged thoracic angles, constituting such marked features, were presaged in *Micromes* or *Trichiotes* and *Oxygonodera* of the Triorophini but, because of its peculiar habitus and structure, there can nevertheless be no question of its profound isolation. *Epiphysa*, although placed tribally with *Edrotes* by Lacordaire, seems to differ so greatly in the structure and degree of separation of the hind coxæ and form and vestiture of the tarsi, as well as in general facies and geographic distribution, as to require a tribal group by itself, and indeed that author himself placed the two genera in different subtribal groups of his "Epiphysides" or Epiphysini. The tribe Edrotini is confined to the Sonoran regions of North America and, so far as known, is represented only by the two following genera:—

Body rounded, convex, with sparse conspicuous erect hairs, the head large, the epistomal lobe quadrate, with its sides parallel and sinuate and apex broadly angulate nearly as in *Triorophus*, clasped by a basally somewhat bulbose, thin dorsal ridge of the mandibles, the latter stout, convex, with the internal dorsal ridge terminating on each in a porrect acute tooth clasping and retracting the labrum, the apex obtusely and unequally bifid and impressed for some distance behind the shallow incisure; mentum transversely hexagonal, the apex trisinate, the median sinus smallest and most angular; eyes small, very convex and prominent, moderately coarsely faceted and unemarginate, the surface without a fine supra-orbital carina but occasionally obtusely ridged at some distance above the eyes; antennæ long and slender, the four or five outer joints larger, the eleventh pyriform and as long but scarcely so wide as the tenth; prothorax with very prominent and acute apical angles, strongly transverse, not acutely margined

or beaded at the sides; scutellum obsolete; elytra even, inflated, very widely embracing the body beneath, the inflexed part separated from the dorsum by a line strongly convex in section, the epipleuræ short, terminating anteriorly at the base of the abdomen; prosternum flat, truncate behind, abutting evenly against the equally flat and elevated mesosternum; legs long, slender, the hind tarsi short but slender, sparsely spinose and not at all grooved beneath, with long flying hairs above as on the femora and tibiæ externally, the basal joint not quite as long as the fourth, the claws evenly arcuate and slender; met-episterna wide anteriorly, narrow posteriorly, with the suture very feeble; hind coxæ transverse, separated by less than their own width. [Type *E. ventricosus* Lec.].....**Edrotes**

Body less stout, oblong-oval, subparallel; head nearly as in *Edrotes*, except that the epistoma is declivous and angularly produced at the middle, confounded with the front and limited posteriorly by a broad shallow transverse depression, which becomes deeper laterally, the lateral lobes thickened but not prominent, broadly rounded, the antennæ with the eleventh joint small, the eyes bounded above by distinct carinæ; prothorax with acute and prominent apical angles, closely fitted to the elytra as in *Edrotes*; scutellum wanting; elytra oblong, carinulate and granulose, the epipleuræ only extending anteriorly as far as the apex of the second ventral segment, the hind coxæ widely separated, the pro- and mesosterna as in *Edrotes*; met-episterna very broad; legs short and stout, the tarsi clothed with short spiny hairs, not sulcate beneath; body apterous as in *Edrotes*, sparsely clothed with coarse decumbent hairs, the sides of the elytra with long erect hairs. [Type *P. granulata* Champ.].....* **Pimeliopsis**

Edrotes is represented by numerous species scattered through our entire Sonoran fauna, but *Pimeliopsis* Champ., is now known only by the type species, about 8.0 mm. in length, of which two specimens were taken by H. H. Smith at Venta de Zopilote, in Guerrero, Mexico, and, being unknown to me in nature, will not be further alluded to.

Edrotes Lec.

In this genus the pubescence, usually long and bristling, is frequently lineate on the elytra, owing to the condensation of punctures along a few longitudinal lines, which represent the low carinæ of *Pimeliopsis*, *Adesmia* and *Craniotus*. The surface is probably always polished but is frequently dull, because of a thin gray-black indument which forms upon it. The species are difficult to classify and describe in a recognizable

manner, although readily divisible into two distinct groups, the species of the first group more widely differentiated among themselves and more readily identifiable by description than the more numerous forms of the second division. An attempt to differentiate these specific, or perhaps in some cases sub-specific, forms, is presented in the following table:—

- Elytral punctures more or less fine and sparse, the surface more shining, the size generally larger, the geographic range more western..... 2
- Elytral punctures large and close-set, with more feeble attached granules, the surface lustre generally duller and the geographic range more eastern.....7
- 2 — Elytra strongly globose or oval, never very distinctly longer than wide.....3
- Elytra oblong-oval, longer than wide.....6
- 3 — Prothorax broad, much more than half as wide as the elytra.....4
- Prothorax narrow, scarcely at all wider than a single elytron.....5
- 4 — Form very rotund, convex, smooth and highly polished, deep black, the erect hairs very long but sparse, grayish-white, more condensed in four fine lines on each elytron; head not as wide as an elytron and very much narrower than the prothorax, very finely, sparsely and simply punctate, the second antennal joint much shorter than the fourth; prothorax between four and five times as wide as its median length, decidedly broader at base than at apex, the latter broadly, very deeply sinuate, with the angles large, strongly produced and very acute, the base transversely truncate, fitting very closely to the elytra, the sides scarcely visibly arcuate; surface very remotely and minutely punctulate, except in lateral fifth or sixth, where the surface becomes abruptly feebly rugulose in longitudinal wavy folds and with moderately coarse and well separated punctures, which are each strongly tumid externally; elytra rounded, one-half or less wider than the prothorax and seven or eight times as long as its median line, the punctures minute and very remote, less sparse in the condensed lines, each puncture immediately behind a small abrupt tubercle; abdomen strongly, moderately coarsely and rather sparsely punctate throughout, the punctures very strongly imbricate. Length 9.5–10.0 mm.; width 6.0–6.7 mm. California (Colorado Desert).
ventricosus Lec.

Form equally rotund and similar in color, lustre and vestiture, except that the erect hairs are less numerous, shorter, more ashy-white and less conspicuous, the size much smaller; head nearly similar in form and sculpture but relatively a little smaller, the antennæ with the outer joints relatively much more elongate even in the male; prothorax similar in general form but not much over four times as wide as its median length, subimpunctate except abruptly

in lateral fifth, where the surface becomes rugose but not longitudinally wavy and with moderately coarse, well separated punctures, each of which is very strongly carinato-tuberculose externally; elytra fully one-half wider than the prothorax and about six times as long as its median line, sculptured nearly as in *ventricosus*; abdomen sparsely but strongly punctato-muricate, polished. Length 7.5-8.0 mm.; width 5.3-5.6 mm. Arizona (Tempe), — Warren Knaus..... *orbis* n. sp.

Form slightly less rotund and more elliptical, similar in color and lustre, the erect vestiture sparse, shorter, yellowish-cinereous and without trace of serial arrangement; head subequal in width to an elytron, smooth and very sparsely but distinctly punctate, the antennæ dark rufous, fulvo-pubescent apically, the apical joints elongate-triangular (♂); prothorax not quite four times as wide as its median length, in form as in the preceding, with very remote, rather small but distinct, submuricate punctures, becoming somewhat abruptly very coarse, deep, elongate and subanas-tomosizing but not attended by definite tubercles in almost lateral fourth; elytra oval, very slightly longer than wide, fully six times as long as the prothorax but only a little more than a third wider, sparsely, very evenly but confusedly punctate, the punctures only moderately small, deep and very distinct, each attended by a very minute granule on its anterior edge; abdomen rather coarsely and somewhat closely but only slightly muricately punctate. Length 7.5 mm.; width 4.8 mm. California (Kern Co.)..... *nitidus* Csy.

5 — Body rounded, deep black, polished under the indument, clothed sparsely with rather coarse, erect and yellowish-cinereous hair, rather shorter than in *ventricosus*, not in the least lineate on the elytra, and intermixed with numerous shorter recurved hairs; head not half as wide as the elytra, finely but distinctly, sparsely punctate; prothorax less than four times as wide as its median length, formed as in the preceding species, rather finely but sparsely, submuricately punctured, with a few coarse punctures scattered along the basal part and closely, coarsely and very roughly punctured toward the sides; elytra as long as wide (♂) or a little wider (♀), very finely, sparsely punctato-granose as in *ventricosus*, except that the punctures are evenly distributed and not condensed into lines, the inflexed sides more coarsely and strongly but still not very closely punctured, the disk fully twice as wide as the prothorax (♀), sensibly less (♂); abdomen rather strongly but sparsely punctato-muricate. Length 6.4-7.0 mm.; width 4.4-4.7 mm. California (Bishop, Inyo Co.), — A. Fenyes.

angusticollis n. sp.

6 — Body oblong-oval, moderately convex, black, with a feeble piceous tinge, the legs and antennæ dark rufo-piceous; erect pubescence long, fine, sparse, very pale yellowish-white, with some shorter and less erect hairs intermingled, not at all lineate on the elytra; surface highly polished; head not quite as wide as an elytron,

finely, sparsely punctate, with a rather pronounced obtuse ridge above each eye; prothorax scarcely four times as wide as its median length, of the usual form, very finely, remotely punctate, abruptly coarsely but not closely so in lateral fifth to sixth, the punctures elongate, tumid externally; elytra evidently longer than wide, very broadly and obtusely subtruncate behind, the punctures moderately small, sparse, evenly distributed, widely impressed and very distinct, each with the usual extremely minute granule attached anteriorly, the inflexed sides coarsely but sparsely impresso-punctate; abdomen coarsely but rather sparsely punctate, the punctures transverse as usual and more or less muricate. Length 7.8-8.7 mm. ; width 4.7-5.25 mm. Utah (southwestern).

longipennis n. sp.

- 7 — Reëntering angle between the sides of the prothorax and elytra deep and well marked.....8
- Reëntering angle very broad and shallow, the sides of the prothorax almost continuous with those of the elytra.....13
- 8 — Elytra strongly inflated, orbicular, not longer than wide.....9
- Elytra more or less evidently elongate, more oval and less rotund...12
- 9 — Head sparsely punctate, not rugose toward the sides10
- Head coarsely and less sparsely punctate, rugose laterally. 11
- 10 — Body rounded, very convex, black, dull in lustre, the legs and antennæ slightly picescent; erect hairs long, sparse, ashy-white, intermingled with shorter and more decumbent hairs, and very feebly, indefinitely lineate on the elytra in broader lines than in the *ventricosus* group; head moderate, much narrower than an elytron, the punctures moderately coarse, sparse throughout; antennæ shorter and stouter than in *ventricosus*, the second joint much longer than the fourth and but slightly shorter than the third; prothorax about three and one-half times as wide as the median length, of the usual form, rather coarsely but sparsely punctured, becoming very coarsely and densely so in less than lateral fourth, the punctures crowded and elongate; elytra about five times as long as the median line of the prothorax, less than one-half wider, with very coarse, deep and subimpressed uniformly distributed punctures, separated by a little more than their own widths, the interspaces, bearing the shorter pubescence, not visibly punctate, the inflexed sides narrower and more convex than in the *ventricosus* group, coarsely, rather closely punctured, separated from the upper surface by a line broadly convex in section and not acute as in *ventricosus*; under surface very coarsely and closely punctate, the abdomen less coarsely and rather sparsely. Length 6.2 mm. ; width 4.4 mm. Colorado. [= *Pimelia rotunda* Say].....**rotundus** Say

Body nearly similar to *rotundus* in form and coloration but smaller and somewhat more shining, the pubescence coarser, ashy-white, scarcely lineate on the elytra, the long hairs shorter, very sparse,

the short hairs sparse and subevenly distributed; head much narrower than an elytron, rather coarsely but sparsely and evenly punctate, the antennæ scarcely longer than the head and prothorax, with the second and fourth joints equal in length and decidedly shorter than the third; prothorax formed as in *rotundus*, coarsely but very sparsely punctured, becoming very coarsely and densely so in lateral fifth; elytra almost hemispherical, six times as long as the prothorax and nearly one-half wider, coarsely and deeply punctate, with the punctures separated by notably more than their own widths, the flanks gradually inflexed and a little more coarsely and closely punctate, the interstices not evidently punctate but not smooth; under surface nearly as in *rotundus*, the first and second ventral sutures deeply impressed near the sides, as frequently the case and possibly to some extent a sexual character. Length 5.4 mm.; width 3.7 mm. Colorado (Greeley).

globosus Csy.

- 11 — Form rounded, convex, deep black, rather shining, the vestiture apparently sparse, shorter and less conspicuous than usual; head distinctly narrower than an elytron, more or less coarsely and sparsely punctate, becoming longitudinally rugose or plicat-rugose laterally, the second antennal joint slightly longer and notably thicker than the fourth and much shorter than the third; prothorax of the usual form, between three and four times as wide as its median length, rather coarsely but sparsely punctured, very coarsely and densely so toward the sides; elytra globose, five or six times as long as the prothorax and nearly one-half wider, very coarsely but not densely impresso-punctate, the punctures separated by twice their own widths or more, the interspaces smooth but more or less convex, with some smaller scattered punctures; under surface coarsely punctured, the abdomen more sparsely as usual. Length 6.6–6.9 mm.; width 4.5–4.6 mm. New Mexico and Colorado*inflatus* n. sp.

Form rounded, much smaller in size, very convex, moderately shining, deep black, the erect hairs moderately long, the shorter recurved hairs sparse and not very short, the pubescence cinereous, with a very feeble yellowish tinge, not or very indefinitely serial on the elytra; head coarsely and only moderately sparsely punctured, densely so and still more coarsely toward the sides, the antennæ nearly as in *inflatus* but with the third joint relatively less elongate; prothorax formed as in *inflatus*, very coarsely, deeply punctate, the punctures separated by about twice their own widths medially, becoming extremely coarse and densely crowded laterally; elytra globose, relatively as in *inflatus*, the surface coarsely rugose because of the very large deep and impressed punctures and the convex, impunctate and shining though slightly rugulose interspaces, which are but little wider than the punctures; abdomen very coarsely, rather closely punctured and rugose. Length 5.3 mm.; width 3.7 mm. New Mexico.....*puncticeps* n. sp

12 — Form somewhat elongate-oval, very convex, moderately dull in lustre, black, the vestiture cinereous, the erect hairs long and numerous, the shorter equally numerous, without any very evident serial arrangement on the elytra; head not very coarsely, sparsely punctured throughout, the punctures not denser but with the surface feebly rugose laterally; second antennal joint but little longer than the fourth though thicker, abruptly constricted or pedunculate at base; prothorax of the usual form but only a little more than three times as wide as its median length, sparsely and moderately coarsely punctured, the punctures very coarse and densely crowded laterally; elytra distinctly elongate-oval, not quite six times as long as the prothorax — on its median line as usual, — and very nearly one-half wider, very coarsely and deeply punctured, the punctures more perforate than in the two preceding species and separated by about twice their own widths, the interspaces sparsely strewn with punctures which are about half as wide as the others; under surface punctured as usual. Length 7.5 mm.; width 4.72 mm. Arizona.....*intermixtus* n. sp.

Form and coloration as in *intermixtus*, the lustre generally rather dull, the vestiture dark cinereous in color, rather shorter and sparser than in *intermixtus* and less conspicuous, not serial on the elytra; head smaller than usual, finely and sparsely punctured throughout, the second antennal joint equal in length to the fourth but thicker, constricted at base; prothorax as in the preceding species but less transverse, scarcely more than three times as wide as its median length, rather coarsely, sparsely but muricately punctate, gradually becoming extremely coarsely, densely so laterally; elytra evidently elongate, elliptical, between five and six times as long as the prothorax and nearly one-half wider, punctured as in *intermixtus* but less coarsely and with fewer or no intermingled smaller punctures, the punctures each with the attached granule somewhat larger than usual in this section; abdomen coarsely but rather sparsely punctured. Length 5.9–7.0 mm.; width 3.6–4.3 mm. New Mexico (Magdalena), — F. H. Snow.....*oblongulus* n. sp.

Form rather less elongate than in the two preceding, strongly convex, black, polished though generally dull by reason of the incrusting indument, plentifully clothed with long, bristling, unusually coarse and conspicuous flavo-cinereous hairs; the shorter not numerous, the vestiture arranged in rather distinct broad lines on the elytra; head larger than in *oblongulus*, subequal in width to an elytron, rather finely, very sparsely and subevenly punctate, the superciliary ridge pronounced; second antennal joint not quite as long as the fourth but thick, constricted at base, much shorter than the third; prothorax of the usual form, fully four times as wide as the median length, rather coarsely, somewhat sparsely punctate, very coarsely and densely so laterally; elytra only very slightly elongate, oval, nearly six times as long as the

prothorax but only about two-fifths wider, very coarsely punctured, the punctures separated by more than twice their own widths, the interspaces nearly flat and with a very few small and widely scattered punctures; under surface with the usual coarse sculpture. Length 6.3-7.3 mm.; width 4.2-4.8 mm. Arizona (Benson), — G. W. Dunn.....*lineatus* n. sp.

- 13 — Body somewhat elongate-oval, convex, somewhat piceous-black, the legs rufescent, the surface dull in lustre; pubescence sparse, coarse, moderately long, fulvo-cinereous in color and not definitely lineate on the elytra, rather close and conspicuous on the head, the latter relatively large, fully as wide as an elytron, rather finely, sparsely punctured, the punctures but little coarser or less sparse laterally but with the surface feebly and longitudinally rugulose; second antennal joint but little longer or thicker than the fourth, not abruptly constricted at base; prothorax of the usual form, not quite four times as wide as its median length, rather coarsely, sparsely punctate, very coarsely and densely so at the sides; elytra just visibly longer than wide, elliptical, the sides more broadly rounded toward base than usual and making a very feeble angle with the sides of the prothorax, the surface uneven because of the very large and deep, unevenly impressed punctures, which are separated by about twice their own widths, the interspaces minutely rugulose and with rather small scattered punctures. Length 6.2 mm.; width 4.2 mm. Colorado, — F. H. Snow.....*subæqualis* n. sp.

Body much more narrowly oval in form, convex, black, rather dull in lustre, the pubescence finer, sparser, somewhat less erect and shorter than in *subæqualis*, more ashy-white in color and similarly devoid of lineal arrangement on the elytra; head relatively large, fully as wide as an elytron in the apparently female type, the punctures small and sparse, rather coarser but not very close-set though somewhat muricate laterally, the second antennal joint rather longer but only slightly thicker than the fourth and not abruptly constricted at base; prothorax of the usual trapezoidal form, with straight sides, but only a little more than three times as wide as its median length, not very coarsely, remotely punctate medially, becoming gradually very coarsely and densely so laterally; elytra evidently longer than wide, about five times as long as the prothorax and barely a third wider, the sides toward base feebly rounded and making but a slight angle with the sides of the prothorax, the surface much smoother than in *subæqualis*, less coarsely and more perforately punctate, the punctures not very close-set, uneven in size; epipleuræ extending to the middle of the metasternum. Length 5.5 mm.; width 3.75 mm. Texas.

angustus n. sp.

There is apparently but little doubt of the specific validity of nearly all the forms above described, and there are probably as

many more still undiscovered. The almost completely denuded type of *inflatus* has remaining only the short sparse and coarse recurved hairs, but slight indication of erect discal hairs remaining, though a more enlarged view seems to show that there may have been erect hairs, represented by apparently broken stumps. The second specimen, from Colorado, is even more completely denuded and differs from the New Mexican type in a number of features, such as the less transverse and more coarsely punctate prothorax and the more circular and less coarsely punctate elytra, but some of these differences may be sexual and, as they both have the peculiar longitudinal rugulosity of the head distinguishing the species from *rotundus* and *globosus*, I have concluded to regard them as constituting a form allied to *rotundus* but specifically distinct, although I am unable to describe the vestiture satisfactorily. This does not appear to be particularly easy to remove, as shown by all the other specimens before me, and the condition of these two examples of *inflatus* is therefore somewhat mystifying.

Tribe CRANIOTINI.

To state the various phylogenetic lines of affinity of *Craniotus* with other groups, from some of which it departs very widely in habitus, would require extended space, out of keeping with the superficial character of the present practically pioneer work in the Tentyriinæ, but the living group to which it is most closely allied is, singularly enough, the old world *Adesmiini*, and the resemblance here is very pronounced in general facies. It however also has some relationship with *Edrotes*, notwithstanding its very different form of body, and it may be said, in this connection, that the Mexican *Pimeliopsis*, closely related to *Edrotes*, is to some extent intermediate in that respect, especially in its less rotund outline, more differentiated prothorax and faint elevated lines on the elytra. With the *Adesmiini* it is particularly allied in the form and position of the coxæ, short, unevenly convex metasternum, form of the met-episterna, general outline of the body and long slender legs, although differing completely in the epipleuræ, which in *Adesmia* are narrow though subequal in width throughout and entire. The side

margin of the prothorax is entirely obliterated in *Craniotus*, more completely so than in *Edrotes* or any of the small types of *Triorophini*, and this character it shares with *Adesmia ulcerosa* Klug, but in *Adesmia microcephala* Sol., there is a perfect and acute side margin as in *Triorophus*, this differential feature probably serving in part as a basis for the subgeneric divisions proposed by Allard. The *Adesmiini* suggest, through a widely diverging line of development, some of the *Asidinae*. The only known genus of the *Craniotini* may be defined as follows:—

Body narrow anteriorly, with inflated elytra, pubescent; head dilated and acutely prominent at the sides before the eyes, the latter transverse, convex, coarsely faceted and unemarginate as in *Edrotes* and even more prominently projecting from the flanks; surface with a broad and deep transverse groove behind the epistoma, which is broadly trapezoidal and but little produced, the apex feebly sinuate; mandibles obtusely bifid at tip, impressed externally, folding entirely beneath the exposed and apically sinuato-truncate labrum; mentum large, transversely hexagonal, deeply sinuate at apex and emarginate at base; antennæ rather long and slender, with the third joint much elongated as in *Adesmia*, the eleventh not free but small and received within the apex of the tenth, the latter being the only broadened joint; prothorax transversely suboval, not beaded at apex, base or sides; scutellum well developed, acutely pointed and elongate; elytra embracing the sides of the body as in *Edrotes*, the epipleurae very narrow and linear but, as in *Edrotini*, confined to the posterior part of the elytra, gradually disappearing before the middle of the abdomen; anterior coxæ moderately separated, the intermediate a little more widely and the posterior remotely separated, briefly, transversely oval, separated from the sides of the body by three-fourths of their own width; metasternum very short, convex at the sides, the met-episterna wide, subparallel, with the suture internally arcuate; femora and tibiæ very long, slender and subcylindric, the hind tarsi comparatively short, slender, with long hairs above and shorter stiff spines beneath, not grooved. [Type *C. pubescens* Lec.]..... **Craniotus**

The eyes in *Adesmia*, although similarly transverse and convex on the flanks, are feebly sinuate anteriorly and are much more finely faceted; the apical parts of the head and mandibles are almost similar, except that the front is not dilated at the sides and the mentum not emarginate at base, and the eleventh antennal joint is free, though very small. The coxæ and metasternum in *Adesmia* are almost exactly as in *Craniotus*, but the posterior are still more widely separated, almost globular in

form and approach the sides of the body very closely, the metepisterna narrower, coming to a point behind and a more obtuse point anteriorly, with the suture strongly arcuate as in *Craniotus*. The body in *Adesmia* is glabrous and the integuments much thicker and more solid than in *Craniotus*.

Craniotus Lec.

The relationship of this genus with the Edrotini can be traced in the pubescence of the body, subtumescent elytral lines, corresponding with similar lines in *Pimeliopsis* and reduced to lines of denser punctuation and pubescence in *Edrotes*, form of the eyes, labrum and mandibles, slender antennæ, unmarginated sides and base of the prothorax, position and extent of the epipleuræ and form of the legs and tarsi. It differs very greatly in the general form of the body, in which it more closely resembles *Triorophus*, in the form of the prothorax and in the large scutellum, this being wholly obsolete in both the Edrotini and Adesmiini. We have only the following type species:—

Body elongate, convex, rather shining, the elytra duller, dark blackish-brown in color, the under surface, legs and antennæ more piceo-rufous; pubescence rather short, sparse, yellowish-cinereous, subdecumbent, with less numerous erect hairs, which are very moderate in length and not at all conspicuous; head nearly as long as wide and but little narrower than the prothorax, evenly, not coarsely and rather closely punctate, the surface evenly convex, without trace of superciliary ridge; antennæ one-half longer than the head, sparsely pubescent and also bristling with erect setæ; prothorax two-fifths wider than long, parallel, the sides very evenly rounded from apex to base, the former feebly sinuato-truncate, with the angles somewhat obtuse but not at all rounded, the base transversely rectilinear, just visibly wider than the apex, the angles very obtuse and blunt; surface very convex, even, rather finely, sparsely punctate, becoming gradually somewhat coarsely and less sparsely so toward the sides and continuously down the flanks to the coxæ; elytra elongate-oval, convex, one-half longer than wide, between three and four times as long as the prothorax and twice as wide, the sides evenly arcuate to the thoracic base, without trace of humeri or callus, the base very briefly prolonged at the sides, wholly devoid of elevated margin, with extremely broadly and feebly tumid lines on which the vestiture is slightly less sparse, forming a vaguely lineate appearance; abdomen smooth, very finely, sparsely punctate. Length 11.0 mm.; width 5.6 mm. California (Colorado Desert) and Arizona (Yuma)..... **pubescens** Lec.

Horn states that this species is not rare, but I only succeeded in obtaining a single specimen and am inclined to regard it as a species seldom taken.

Tribe ZOPHERINI.

With this remarkably isolated tribe there begins a series of genera, differing altogether from those which precede in the general habitus of the body and in many structural characters, such as the small or moderate mentum and the occurrence of fossæ for the shelter of the antennæ. I have, however, followed LeConte and Horn in associating them with the preceding genera having a large mentum, to form the subfamily Tentyriinæ, because of the closure of the middle acetabula by the sterna alone, with entire absence of trochantin. It is questionable, however, if we are not giving too great prominence to the latter character, and it would perhaps be more natural to include in the subfamily Tentyriinæ only those genera having a large mentum, and to delimit another subfamily, beginning here and including also what LeConte and Horn called the Asidinæ, holding the presence or absence of a trochantin to be of subsidiary importance. This arrangement would at least bring together generic types having a strong bond of similarity in general facies of the body, for it is very evident that the Zopherini, Stenosini and other tribes without trochantin, resemble *Nyctoporis* and the Asidini much more closely than they do any of the preceding tribes with large mentum. It is true that certain genera with large mentum, such as *Hyperops*, recall strongly some of these forms with smaller mentum, such as the Stenosini, but this resemblance is undoubtedly accidental and betokens no real relationship, any more than the very striking superficial likeness of *Salax* to *Opatrum* evinces any real affinity.

As intimated above the Zopherini are without any close relatives, except the Nosodermini and Usechini, with which they share a good many peculiar characters, such as the deep apical fossa of the abdomen and absence of epipleuræ. Besides the invisible labial palpi and presence of antennal fossæ, perhaps their most aberrant characters are the very minutely faceted

eyes, which are transverse, approximate above and largely concealed in repose and the deep transverse asexual fossa of the last ventral segment just mentioned. The genera known to me may be readily distinguished as follows:—

Elytra abruptly inflexed at the sides, the inflexed sides more or less nearly flat and having the aspect of true epipleuræ; prosternum between the coxæ forming a broad flat and medially canaliculate plate, prominent at the sides behind the coxæ; mentum lobed at each side at apex, the intermediate part of the apex transversely swollen; antennal fossæ not enlarged or posteriorly angulate at tip; body but feebly constricted at the waist. [Type *Zopherus chilensis* Gray]***Megazopherus**

Elytra not abruptly and less widely inflexed at the sides; prosternum longitudinally convex between the coxæ, not prominent at the sides; body strongly constricted at the waist, more convex.....2

2—Antennal fossæ posteriorly angulate at the tip; mentum flat, broadly, feebly sinuate at apex; scutellum wholly obsolete; elytra each with a large rounded tubercle near the apex and sometimes with another smaller one nearer the apical angle; body always pale with black mottling. [Type *Z. mexicanus* Gray].

Zopherus

Antennal fossæ not posteriorly angulate at tip; mentum more uneven, frequently bi-impressed, broadly sinuate at apex, with an elevated transverse ridge along the margin; scutellum minute, triangular..3

3—Elytra each with a large rounded flattened discal tubercle near the apical angle as in *Zopherus*, very coarsely tuberculose, the coloration black, generally with pale venose coloration at the sides and sometimes throughout. [Type *Z. limbatus* Csy.].

***Zopherinus**

Elytra without the rounded subapical tubercles of the two preceding genera, each having a short oblique ridge at apex and impressed along the suture thence anteriorly for a short distance, the ridge differing greatly in form from the tubercle of the preceding genera; surface more or less finely tuberculose throughout, the tubercles frequently obsolete; color of the body invariably deep black without paler ornamentation. [Type *Zopherus tristis* Lec.]... ..**Zopherodes**

Each of these genera has a distinct habitus of its own, admitting of instant recognition and there can be no doubt of their reality. *Megazopherus* Csy., is Central American, extending to the northern part of South America and *Zopherus*, Mexican and Central American, one species occurring in southern Texas; *Zopherinus* Csy., has very much the same range though much less numerous in species. *Zopherodes* is purely Sonoran.

This group, together with the genera placed below in *Nosodermini*, was recently revised by the writer in the *Canadian Entomologist* (1907, p. 29 et seq.), where the above genera were originally defined.

Zopherus Gray.

This genus is widely diffused in Mexico and tropical North and South America, being represented by many species, some of which approach each other rather closely in facies, so that their circumscription is not always easy. The small additional tubercle, between the regular tubercle and the apical angles, varies a good deal in prominence and may possibly be gradually obsolescent in various forms, but, at the same time, it seems to be correlated with the form of the posterior margin of the excavation in the last ventral segment, this marginal wall being anteriorly prominent at the middle in the bituberculate apex and emarginate in the quadrituberculate. We have but a single species, which may be readily known as follows:—

Body elongate, convex, rather dull in lustre, the upper surface yellowish-white, with the median part of the pronotum and sutural parts of the elytra irregularly black, a large black subquadrate blotch in basal half of the former particularly conspicuous; head black, with a transverse pale line at base, very finely and remotely punctate; prothorax about as long as wide, twice as wide as the head, the apex much wider than the base, bisinuate, the sides slightly and subangularly dilated before the middle, thence moderately converging, rather strongly arcuate and tuberculose to the feeble sinuosity at the base, the surface smooth, finely, sparsely punctate, usually having a few small black spots at the centre of the broad lateral white regions; scutellum triangular, confined to the steeply sloping base of the elytra and scarcely entering between them; elytra elongate-oval, as wide as the prothorax and not quite twice as long, with five rows of large feeble tubercles, the sutural close-set, forming a continuous black line, the second and third rows composed of much more widely separated black tubercles on the white ground, the fourth row still more widely spaced, separated from the adjacent series by a much wider interval, the fifth again with rather close-set tubercles and at the lateral margin; apical tubercles four in number; under surface in great part black, the prothorax wholly so, the other sterna with some white spots laterally and the second and third segments each with a white blotch at each side of the middle; prosternum coarsely, coalescently punctate medially, not tuberculose, the intercoxal surface canaliculate along the middle; pos-

terior wall of the abdominal excavation very deeply and narrowly emarginate at the middle. Length 23.0-26.0 mm.; width 8.5-10.0 mm. Texas. [= *nodulosus* Horn nec Sol., and *variolosus* Hald.].....*haldemani* Horn [Sallé MS.].

The series of eight specimens in my cabinet hold together remarkably well and with very little variation; the species is related more especially to *reticulatus* and *marmoratus*. The authorship of the name of this species is rather uncertain; Horn wished Sallé to be credited, but the few comparative remarks made by him form the basis of a decision by Mr. Champion (Mem. III, Soc. Ent. Belg.), that he himself is the proper authority for the name. The description given above is the first that has been published so far as known to me.

The integuments in this genus are so thick and hard as to almost defy ordinary methods of mounting, and I have frequently had the point of an ordinary pin curl upward in attempting to force it into the elytron, finally being compelled to bore a hole with a steel instrument for the insertion of the pin.

Zopherodes Csy.

The geographic range of this genus is from northern Mexico to Utah and westward to the southeastern mountains of California, also occurring in Lower California, but it does not appear to extend to the Pacific Ocean, having its maximum development in Arizona, New Mexico and adjacent regions. The species are much smaller in size than in *Zopherus*, very numerous and conform to a nearly uniform type of structure and facies, so that they form fully as difficult a study as the preceding genus. The surface sculpture is much finer and closer than in *Zopherus*, and the body is uniformly black throughout in all except the *elegans*, of Horn, which presumably does not belong here and which I have been unable to observe in nature. In the species of the *tristis* type, the upper surface is coated, especially toward the sides, with a pale grayish indument, which is minutely sculptured and apparently a normal part of the integument, but this indument is not observable to any considerable extent elsewhere. The components of this genus having been recently reviewed (l. c., p. 38), I will simply add here a

number of species, for the most part since received, as follows:—

Elytra subcylindrical, more abruptly narrowed at base and toward apex as in *tristis* Lec.; pronotum strongly convex, generally very feebly impressed along the median line for a short distance at the centre of the disk2

Elytra evenly oval in outline, the pronotum usually less convex and never impressed along the median line..... 3

2 — Form more elongate than in *tristis*, the size larger though very variable in this respect, dull in lustre, the elytra with gray indument between the tubercles laterally; head rather coarsely but sparsely punctured; prothorax nearly as long as wide (♂) or shorter (♀), very coarsely punctured, sparsely toward the middle, where the short impressed line is distinct, densely and more or less confluent punctured toward the sides posteriorly, the sides subangularly prominent near apical third, converging, arcuate and tuberculose thence to the base, the basal bead coarse and strong; elytra three-fourths longer than wide, slightly wider than the prothorax and three-fourths to four-fifths longer, more evidently wider in the female than in the male, with coarse flattened tubercles which are only vaguely lineate in arrangement and mingled with others which are smaller and more convex; prosternum and abdomen very coarsely but sparsely punctate, the former not at all tuberculose. Length 10.2–17.5 mm.; width 3.8–6.5 mm. Arizona (Baboquivari Mts.), — F. H. Snow.

variabilis n. sp.

Form more slender, smaller in size, with relatively much larger prothorax, dull in lustre, the pronotum laterally and the elytra, almost throughout between the tubercles, covered with gray indument; head remotely, rather coarsely punctate; prothorax as long as wide, obtusely subprominent at the sides behind apical third, the sides thence converging and arcuate to the apex and more converging to the base, being sinuate near the prominence and before the basal margin and tuberculose and arcuate intermedially, the surface scarcely impressed medially, sparsely and moderately coarsely punctate, only a little more closely laterally; elytra small, one-half longer than wide, distinctly narrower than the prothorax and only one-half longer, with flattened tubercles which are very uneven in size, rather sparse laterally and seriate toward the suture; prosternum and abdomen as in the preceding. Length 13.0 mm.; width 4.7 mm. Arizona (Tuçson).

incrustans n. sp.

3 — Elytra tuberculose.....4

Elytra without tubercles, the surface smooth and alutaceous or duller.....7

4 — Elytra not wider than the prothorax.....5

Elytra wider than the prothorax..6

5—Form slender (♂) or rather stout (♀), convex, dull in lustre, with comparatively much more shining elytral tubercles; head not coarsely, very remotely punctate; prothorax evidently shorter than wide, the sides very obtusely and feebly prominent at apical two-fifths, thence rather feebly converging and straight, then rounded to the apex, strongly converging, broadly arcuate and tuberculate between the feeble sinuses to the base, which is much narrowed, with coarsely elevated margin; surface only moderately coarsely, scarcely at all muricately, sparsely and very irregularly punctate, more coarsely and closely only very near the sides anteriorly; elytra not quite twice as long as wide, two-thirds longer than the prothorax and not quite as wide, with large, moderately elevated, close-set and sometimes coalescent tubercles, without evident linear arrangement, the interspaces very finely, remotely, feebly and simply punctate; prosternum coarsely, irregularly foveato-tuberculose, the abdomen sparsely punctured, very coarsely basally, rather finely behind the first two segments. Length 17.0–18.0 mm.; width 5.8–6.3 mm. New Mexico (Clouderoft),—Warren Knaus.....*morosus* n. sp.

Form slender, convex, dull in lustre, the elytral tubercles relatively rather strongly shining, head finely, remotely punctate; prothorax about as long as wide, the sides feebly subangulate at apical two-fifths, thence feebly converging and straight very nearly to the apex, where they become strongly rounded, moderately strongly converging, only very feebly arcuate but densely tuberculose to the base, the latter coarsely elevated; surface somewhat finely punctate, the punctures rather sparse but very uneven in distribution, each at the posterior end of a comparatively large flattened tubercle, the punctures similar laterally but with the tubercles smaller and more sharply elevated; scutellum minute, transversely rounded; elytra scarcely twice as long as wide, three-fourths longer than the prothorax and equally wide, with rather large, well separated, very strongly elevated rounded tubercles, indistinctly arranged in series, the intervals with fine, sparse, muricate punctures; prosternum evenly, strongly tuberculose, each tubercle with a very fine attendant puncture; abdomen sparsely punctured; coarsely on the first two segments. Length 15.0 mm.; width 5.2 mm. New Mexico (Fort Wingate).

verrucipennis n. sp.

6—Body moderately stout, convex, shining; head sparsely and very coarsely punctate; prothorax not quite as long as wide, feebly but angularly dilated at apical two-fifths, the sides thence moderately converging and straight to the strong apical arcuation, more strongly converging, arcuate and tuberculose between the two sinuses to the base, the latter with an irregular elevated margin; surface coarsely, unevenly and not very sparsely punctate, the punctures muricate or subtuberculiferous, not differing much toward the sides though a little finer and less muricate posteriorly;

elytra only a little, though evidently, wider than the prothorax and four-fifths longer, fully three-fourths longer than wide, the sculpture rough in irregular transverse plicæ, feebler, sparser and mixed with some small and irregular tubercles toward the sides, the plicæ and interspaces equally shining; prosternum rather closely punctato-tuberculose, the abdomen coarsely, not densely punctured throughout. Length 17.8 mm.; width 6.7 mm. California, — Cab. Levette.....**californicus** n. sp.

Body rather less stout and convex, much more inflated posteriorly, nearly as in *ventriosus*, densely dull and without lustre; head rather coarsely, very sparsely punctured; prothorax small, nearly as long as wide, the sides broadly rounded, with a mere trace of prominence before the middle, more converging toward base but only slightly tuberculose, the basal margin thick though only slightly elevated; surface rather sparsely and somewhat irregularly, moderately coarsely punctate, the punctures very feebly muricate, closer, rather coarser and scarcely at all muricate laterally; elytra fully a fifth wider than the prothorax and nearly twice as long, barely three-fourths longer than wide, the surface with moderate and somewhat sparse punctures, each attended by a small and feeble, slightly transverse tubercle, evenly distributed but not evidently lineate in arrangement; prosternum irregularly and closely but not very strongly punctato-tuberculose, the abdomen coarsely, moderately closely punctured, gradually less coarsely posteriorly. Length 16.0 mm.; width 6.5 mm. California (Giant Forest).....**parvicollis** n. sp.

7 — Form very elongate and slender, the upper surface more feebly convex, moderately dull in lustre; head not very coarsely, sparsely punctured; prothorax fully as long as wide, the sides very feebly subprominent near apical two-fifths, thence but slightly converging and feebly arcuate, becoming gradually strongly rounded to the apex, converging posteriorly, straight for a short distance from the prominence, then moderately arcuate and tuberculose to the short basal sinus, the basal margin not very thick, abruptly and strongly elevated; surface finely, simply and sparsely punctate, becoming more coarsely and closely so only near the sides anteriorly; scutellum minute, angular; elytra very elongate, more than twice as long as wide, as wide as the prothorax to slightly narrower and nearly twice as long, the surface with very coarse, generally subtransverse and vermiculate impressed lines, strong toward base and near the apex, moderate elsewhere, also finely, sparsely, sublinearly punctate; prosternum foveate and tuberculose, the abdomen moderately coarsely punctate, coarsely so basally. Length 15.5-18.0 mm.; width 5.0-6.0 mm. Arizona, — Warren Knaus.
elongatus n. sp.

Form very slender, much smaller in size, convex, less flattened above, less dull, the lustre rather shining and simply alutaceous; head very sparsely, moderately coarsely punctate; prothorax fully as

long as wide, very sparsely, simply and rather coarsely punctate, becoming very coarsely and more closely so near the sides anteriorly, the sides and basal margin as in *elongatus*, the sides before the feeble prominence straight for a longer distance anteriorly; scutellum subobsolete; elytra equal in width to the prothorax and three-fourths longer, twice as long as wide, the surface almost perfectly smooth, with even series of widely spaced double punctures which are moderate in size, the close-set pairs of punctures arranged longitudinally, the intervals with single series of very remotely spaced solitary punctures, which are but little smaller in size; prosternum coarsely, irregularly foveate and less coarsely tuberculose, the abdomen coarsely punctured basally, gradually less coarsely posteriorly. Length 13.0 mm.; width 4.4 mm. Arizona (near Fort Apache), — Warren Knaus.

geminatus n. sp.

Enough material has now been accumulated in this genus to demonstrate three clearly marked groups of species; one, consisting of *tristis* and allies, another, of the elongate slender forms having the elytra tuberculose to smooth and inhabiting Arizona, New Mexico and adjacent regions north and south, and the third, of those species inhabiting southern California and probably also Lower California, characterized uniformly by a more dilated hind body and smaller prothorax, giving them an obviously different habitus. Five of the third group are now known, including *granicolis* Horn. The regularly lineate elytral punctures of *geminatus* are arranged in an unaccountably peculiar manner in groups of two. On closely examining these pairs of approximate punctures, it may be observed that one of them, the anterior in each case, is the setigerous puncture attending the tubercles in those forms possessing elytral tubercles, while the other is the ordinary simple puncture of the depressed spaces between the tubercles. As the tubercles are lost in the smoother forms, there is a tendency of these two systems of punctures to segregate and approximate themselves in groups of two, these binary sets forming regular lineate series. This peculiar segregation is best developed in *geminatus* though observable, to some extent, also on the much rougher and vermiculose, though non-tuberculate, elytra of *elongatus*, but Dr. Horn has not stated whether or not it occurs in *gracilis*, — a shining smooth species, with linearly punctured elytra, differing from any other known to me in the absence of an elevated basal thoracic margin.

The three forms *aqualis*, a specimen of which has recently been received from Tempe, Arizona, *variabilis* and *incrustans* are close allies of *tristis* Lec., and whether they should be regarded as subspecies or not, is a question that I am not fully able to decide at present, but it would probably harmonize more nearly with consensus of opinion, at the present day, to so consider them. *Morosus* is allied to *guttulatus*, differing in the much less rounded sides of the prothorax and closer and much more confused elytral sculpture. *Verrucipennis* is related closely to *otiosus*, and the type was included among the original cotypes of that species, but it differs in its more abbreviated elytra, with sparser, much more elevated and not so definitely serial tubercles and less rounded sides of the prothorax toward base. Inhabiting the same geographic region, though doubtless a very different station, it has evidently been evolved with *otiosus* from a common ancestor in comparatively recent times, and, although now sufficiently distinct to be easily recognized, it may possibly with more propriety be regarded as a subspecies of *otiosus*. The elytra toward the sides have some of the grayish indument, so developed in the *tristis* group, which is wanting in *otiosus*. This indument is minutely granulo-reticulate, like the rest of the surface, and is permanent; it differs wholly in nature from the pale coating in *Zopherus* and forms a remarkable peculiarity of *Zopherodes*. *Parvicollis* is related to *ventriosus* but differs in sculpture and in its very opaque sericeous integuments, and *californicus* is founded above upon the specimen which I formerly regarded as the male of *ventriosus* (l. c., p. 39); it is evidently a distinct species. *Elongatus* is allied to *lugubris* and *pudens* but differs in its more flattened upper surface and very much coarser vermiculate sculpture, and finally, *geminatus* stands alone at the foot of the series, to be followed by *gracilis*, differing from it as above stated. The individuals in *variabilis* differ in size among themselves to a very unusual degree, scarcely realizable from the measurements given. Additional specimens of *lugubris* have recently been received, collected near Flagstaff, Arizona.

The *Zopherus elegans*, of Horn, is possibly a member of the genus *Zopherinus*, the Durango specimens figured by Champ-

ion, evidently having the large rounded flattened apical tubercles of that genus, and not the small and oblique ridges of *Zopherodes*.

Tribe NOSODERMINI.

The radically different structure of the ligula and labial palpi would alone necessitate the tribal separation of *Nosoderma* and allied genera from *Zopherus*, but, in addition to this, the entire facies of the body and style of sculpture are strikingly different and the mandibles, instead of being truncate at tip as in the Zopherini, are deeply bifid, although, in view of the variability of this character in some other tribes, such as the Epitragini, it might be regarded as subsidiary in value; it is however more constant and apparently more significant in this part of the series. The genera or, in some cases perhaps more properly subgenera, are numerous, and the nine here indicated are only a part of them. Most of these minor groups possess very marked and unequivocal distinctive characters, and it undoubtedly becomes necessary to indicate them by name in any scientific scheme of classification. As far as known to me these generic groups may be briefly diagnosed as follows:—

- Last two antennal joints united.....2
- Last two antennal joints not united, the joints all free.....7
- 2 — Tarsi grooved beneath.....3
- Tarsi not grooved beneath; antennæ free, not received in sternal fossæ4
- 3 — Antennæ completely sheltered within deep prosternal fossæ. California region. [Type *Nosoderma diabolica* Lec.].
Phlæodes
- Antennæ not received within fossæ, the grooves only traceable in an indefinite anterior depression. California region. [Type *Nosoderma plicata* Lec.]**Noserus**
- 4 — Antennal joints four to eight transverse and superfoliate, the ninth as large as the two preceding united, the tenth cylindric, the eleventh enclosed within its apex, very small and scarcely prominent; prothorax with the apex bilobed. Mexico. [Type *Nosoderma denticulata* Sol.].....***Sesaspis**
- Antennal joints four to eight similar to the preceding, moniliform or obconic, the ninth obconic, the eleventh more apparent, generally forming with the tenth a subglobular mass; scutellum subobsolete except in *Noserinus*5

- 5 — Apex of the prothorax broadly arcuate medially, the sides coarsely crenulate. Cuba. [Type *Nosoderma duponcheli* Sol.]. ***Meralius**
- Apex of the prothorax broadly emarginate, approximately bituberculose on the disk at the middle, with the sides coarsely crenulate; elytra cristate and tuberculose somewhat as in *Nosoderma*; prothorax short, smooth and but slightly uneven on the disk, the elytra elongate; scutellum circular, tumescent, densely scaly and conspicuous; hind coxæ much more approximate than usual. Brazil. [Type *N. annulatipes* n. sp.].....* **Noserinus**
- Apex of the prothorax broadly emarginate, the sides granulose or finely tuberculata, never coarsely crenulate. Mexico.....6
- 6 — Mentum very small, obliquely narrowed at apex, exposing the entire ligula and the maxillæ; last three joints of the maxillary palpi subequal in length; elytra rounded at tip, with some large isolated tubercles on and above the apical declivity, none of which is marginal. [Type *Eurychora inæqualis* Say]....* **Nosoderma**
- Mentum small, trapezoidal anteriorly, concealing the base of the ligula; last joint of the maxillary palpi large, almost as long as the two preceding combined; middle coxæ less widely separated; elytra subconical at tip between the two large subapical marginal tuberosities. [Type *N. squalidus* n. sp.].....* **Nosoderodes**
- Mentum small; elytra rounded behind, without inequalities, the entire surface of the body devoid of tubercles or ridges and merely finely and equally granulated; prothorax elongate, suboval; antennæ submoniliform, the eleventh joint enclosed by the tenth, which is very large and truncate at tip. [Type *Nosoderma æqualis* Champ.].....* **Verodes**
- 7 — Antennæ free, the last three joints wider, forming a loose club, the sternal grooves wholly obsolete; tarsi not grooved beneath except the last joint, which is feebly impressed; mentum small, transverse as usual, broadly rounded at apex, exposing the maxillæ and ligula, the latter short, broad, tumid and densely chitinous; last three joints of the maxillary palpi subequal in length; elytra ridged, strongly tuberculose at and near the apex. Nearctic regions. [Type *Boletophagus obcordatus* Kirby].....* **Phellopsis**

These genera, as indicated by the asterisks, are nearly all foreign to our own territory. *Sesaspis* (n. gen.) is founded upon a very remarkable species, which is well described by Solier, but which was not rediscovered by the workers on the "Biologia." *Meralius* (n. gen.) represents a type peculiar to the Caribbean fauna, and *Verodes* (n. gen.) is founded upon a peculiar species recently made known by Mr. Champion in the epoch-making publication referred to. *Noserinus* (n. gen.) is

a peculiar South American type, distinguished from any other by the distinct scutellum, among other characters.¹ But little more can be said of these genera at present, as all except one of the types above noted are unrepresented in my cabinet, but they doubtless possess many peculiar structural characters besides those which I have inferred from published drawings and descriptions.

Phlæodes Lec.

The mentum in this genus differs greatly from that of *Nosoderma* in being emarginate at the middle of the apex; it is small, leaving the maxillæ exposed at the sides but covers most of the ligula and the base of the labial palpi; its surface is impressed along the middle, more broadly toward base, and is densely punctured and squamose throughout. The surface of the body is very densely covered throughout with small decumbent stri-gose scales, through which smooth shining tubercles protrude, and the surface of the elytra is very roughly and densely pitted, evenly rounded at apex and without ridges or large tuberosities. Along the median line of each elytron there are three small patches of a deep velvety-black color, which upon closer examination, prove to be composed of very short, extremely dense and more hair-like vestiture standing erect. The sexual characters of *Phlæodes* are very obvious and peculiar but do not appear to have been observed hitherto. The male is character-

¹The type of this remarkable genus, which differs from any of the North American genera, not only in its well developed scutellum and approximate hind coxæ, but in having true elytral epipleuræ, obsolescent posteriorly, may be described as follows:—

Form rather slender and somewhat convex, piceo-rufous, the upper surface moderately shining, in great part glabrous, except the dense pale scales along the sides of the body, on the elytral crests and tubercles and on the legs, the tibiæ being broadly banded at the middle with black scales; head with two short longitudinal furrows; prothorax transverse, constricted near the base, equally wide at apex and base, the surface subglabrous and but slightly uneven, the lateral edges arcuate, coarsely crenulate and the apex approximately bituberculate; elytra with distinct series of punctures, wider than the prothorax and between three and four times as long, rather attenuate posteriorly, obtusely rounded at tip, with a median crest on each elytron to slightly behind the middle and some subapical tubercles. Length 15.8 mm.; width 5.8 mm. Brazil (Blumenau).....**annulatipes* n. sp.

This species is evidently related to *dormeanum* Fairm., from Minas Geraes.

ized by a large tumidity, bearing an elongate pubescent patch surrounded by a convex margin, on the under surface of each femur near the base, this being wholly wanting in the female.

The transverse excavation of the fifth ventral is very large, occupying nearly the entire segment, and has at the bottom an obliquely elevated, flat, posteriorly trapezoidal surface feebly emarginate at tip. The blackish-brown scales of the elytra become whitish, although structurally unaltered, on the apical declivity of many species. The forms then known to me were briefly diagnosed recently (Can. Ent., 1907, p. 42) and, although the status of some of them seemed doubtful, they appear to be more certainly validated by additional material lately received, the type of *elongatus* being perfectly duplicated by two specimens marked "San Diego," received from Professor Snow, the two original examples of *ovipennis* by another agreeing perfectly, marked "S. Cal.," on the label, and the original type of *scaber*, collected by Dunn, by another marked "Julian." The two original male types of *latipennis*, characterized by a prothorax unusually narrowed toward base and much narrower than the elytra, are matched well by another specimen, female, without definite locality. The following form is to be placed near *angustus*:—

Body very narrow and elongate, smaller in size, densely clothed throughout with a gray-brown scaly indument not paler posteriorly, the velvety spots of the elytra not black but a more reddish-brown; head bi-impressed, sparsely tuberculose throughout; prothorax a little longer than wide, parallel and rounded at the sides in apical three-fifths, then strongly, sinuously narrowed to the base, which is relatively much narrowed and distinctly narrower than the base of the elytra, the median parts of the surface moderately elevated, sparsely strewn with coarse tubercles, the concave lateral parts largely devoid of tubercles except toward the sides anteriorly; elytra two-thirds longer than wide and two-thirds longer and but slightly wider than the prothorax, deeply sinuate at base, the surface flat above, abruptly declivous at the sides and apex, very roughly and irregularly pitted and with the tubercles small and unusually remotely scattered throughout. Length 16.0 mm.; width 6.0 mm. California (locality unrecorded)...**remotus** n. sp.

This species is represented before me by a single male, the elongate pubescent area, at basal third of the femora, unusually

clearly delimited by a swollen elliptical ring at the summit of a moderate but rather abruptly formed prominence. The paler color of the elytral vestiture does not appear to be accidental in the type.

Noserus Lec.

The sexual characters in this genus are similar to those of *Phlæodes*, except that the tumescent pubescent fovea surrounded by a tumid glabrous black ring on the under surface of the femora near basal third, characterizing the male, is not greatly elongate, as in that genus, but nearly circular. In this character therefore, the genus is very closely related to *Phlæodes*, but in many others it differs profoundly. The labial palpi are similarly large and thick, attached at the sides of the ligula, which is narrow and projecting well beyond the apex of the mentum, but the latter, though generally similar in size and form and covering the base of the palpi, has its apex narrowly and declivously produced and its surface longitudinally and rather narrowly sulcate anteriorly; the last joint of the maxillary palpi is similarly obliquely ovoidal and obtusely pointed, but is a little larger. The antennæ are nearly similar, the first nine joints being feebly obtrapezoidal and roughly sculptured and the globular tenth and eleventh, combined, smooth, though here less completely polished than in *Phlæodes*, but in the complete absence of the abruptly excavated *Zopherus*-like furrow for the reception of the antennæ, the propleuræ being merely indefinitely and moderately depressed anteriorly, we have a really radical difference between the two genera; this is supplemented by the elytral ridges and apical tuberosities of *Noserus*, which are not even suggested in *Phlæodes*. In the present genus the transverse excavation of the fifth ventral occupies only a little more than basal half of the segment; it is broadly, evenly sinuate posteriorly, the bottom rising gradually from the base posteriorly, where it is nearly at the level of the elevated hind margin and separated therefrom by a narrow and deep ambient sulcus. The specific or subspecific forms are quite as difficult to define as in *Phlæodes*, but two before me, besides those previously defined (l. c., p. 43), may be outlined as follows:—

Surface depressed and nearly flat as in *plicatus*, similarly densely covered with a thick brown indument of close-set scale-like suberect hairs, mingled with hard earthy material, the tubercles with longer, stout, reclined and curved fulvous subsquamoid bristles; head remotely bi-impressed, with small sparse black tubercles and fulvous bristles; prothorax not quite as long as wide, rounded at the sides, the latter converging toward base and becoming briefly sinuate at the basal margin, the surface with two sinuous ridges and scattered tubercles nearly as in *plicatus*; elytra with the ridges and posterior tuberosities similarly placed but much feebler, the small black tubercles penetrating the crust, finer and more remotely scattered. Length 15.5-16.5 mm.; width 5.7-5.9 mm. California (Los Angeles Co.).....**corrosus** n. sp.

Surface much more convex than in any other species, the form stout, parallel, with thick and dense, multi-fissured dark indument; head impressed, nearly smooth, with small scattered tubercles; prothorax not quite as long as wide, the sides parallel and arcuate, becoming moderately convergent and feebly arcuate in basal three-fifths, feebly sinuate at the obtuse basal angles, the base broadly arcuate; surface with the sinuous ridges narrow, feeble and wholly interrupted at the middle of their length, the surface at the sides more coarsely and roughly sculptured than in *plicatus*, the scattered tubercles nearly similar; elytra a little broader and relatively shorter than in *plicatus* but almost similarly ridged and tuberosely, the large irregular indentations much deeper, the tubercles fine and remotely scattered. Length 16.0 mm.; width 6.5 mm. California.....**convexus** n. sp.

Corrosus is represented by two similar females and *convexus* by a single female, from an unrecorded locality of the State; it is the broadest and least flattened form known thus far. I believe that the genus *Noserus* will prove to be confined to the true Pacific coast fauna, with its very close relative *Phlaodes*, and that the species described from Texas by Dr. Horn, under the name *emarginatus*, will prove to be generically different, possibly belonging to a Mexican type related more closely to *Nosoderma*.

Nosoderma Sol.

I have here restricted this genus to those species having the elytra almost evenly rounded behind, with large isolated tuberosities scattered over posterior half, none of which is strictly marginal and with longitudinal, more or less incomplete or interrupted ridges thence to the base, the mentum very small, transverse, obliquely narrowed and narrowly truncate ante-

riorly, exposing the entire maxillæ and ligula, the latter narrow, with the palpi inserted in large latero-dorsal foveæ in front of the mentum and wholly exposed, the mentum flat and very coarsely, not densely punctate. The last joint of the maxillary palpi is longer and, especially, much broader, than the third, with its apex compressed and broadly truncate, not obtusely pointed as in the preceding genera. The antennæ are perfectly free, there being no trace of propleural sulcus, and the joints are feebly obtrapezoidal, not very roughly sculptured, the third much longer than the second or fourth, the ninth larger than the eighth, more obtriangular and not transverse, somewhat narrower than the combined last two joints, which are subglobular, with transverse suture and spongiose apex. The surface of the body is not always covered with indument, the integuments frequently being clean and more or less opaque between the small shining tubercles, the vestiture fulvous. The abdominal excavation occupies at least basal two-thirds of the fifth segment and is nearly as in *Noserus*. The male has a large and elongate-oval, smooth and feebly convex, finely punctate and subglabrous elevation at the base of the under surface of the middle and posterior femora, a much smaller feeble shining tubercle near the base of the anterior femora, and, sometimes, as in *senex*, a smooth punctate beveling at the tibial apex below, the female having no trace of these structures and the femora a little more slender than in the male. The species are very numerous, the type being quite indeterminate and necessarily to be fixed anew,¹ but *morbillosa* and

¹The species named *Eurychora inæqualis* by Say, may be definitely described and the type reestablished as follows:—

Form moderately depressed, parallel, nearly as in *senex* but larger and with the elytra more gradually, arcuately narrowed behind to the more acute apex, which is more strongly, angularly emarginate at the suture, the angles obtusely prominent, black, the vestiture fine, sparse and inconspicuous; head sparsely punctured, reflexed at the sides as usual, more broadly sinuate at apex than in *senex*, the prothorax subquadrate, similarly sculptured, except that the tubercles are smaller and more convex, the sides more angulate just before the middle and the basal angles more acute, decidedly diverging and prominent; elytra similarly sculptured, with smaller and less flattened tubercles, the humeri much more exposed at base beyond the thoracic angles, the posterior tuberosities much larger and studded more closely and conspicuously with the small shining tubercles; under surface with

vicina, of Solier, are certainly not identical with Say's species and are both valid; in addition *exsculpta* and *carinata* Champ., and probably *asperata*, *scabrosa* and similar described forms, will enter the genus. The six following can be described at the present time as typical species:—

Pronotum not elevated along the median line, its base extending laterally beyond the basal angles of the elytra, the latter each with three tuberosities at the summit of the apical declivity forming an equilateral triangle, with its base transverse. Body parallel, moderately stout and not very depressed, deep black, dull, the vestiture decumbent, rather dense, consisting of fulvous squamiform hairs; head sparsely punctured, not tuberculose, elevated at the sides; prothorax subquadrate, as long as wide, the sides rounding and converging near the apex, gradually and very feebly converging basally and nearly straight to the right, blunt and somewhat prominent basal angles, the base broadly, arcuately lobed; surface with two strong sinuous ridges, the intermediate space broadly concave behind, narrowest at the middle, the shining tubercles confined mostly to the summits of the ridges but also scattered broadly toward apex and near the sides; elytra coarsely pitted, a little wider than the prothorax and not quite twice as long, the humeri obliquely truncate, the base sinuate, each elytron with a narrow, strongly elevated and nearly straight ridge along the median line from the basal margin to a little before the middle, and with two smaller, more elongate tuberosities before the triangle of three above mentioned, the shining tubercles small and subevenly scattered throughout; under surface sparsely squamopubescent and tuberculose throughout. Male with the elongate tumescent glabrous area of the two posterior pairs of femora finely punctate, the tubercle of the anterior pair similar and elongate, though only about three-fourths as long. Length 17.0–18.0 mm.; width 6.0–6.7 mm. Mexico (Guerrero), — Baron.

* *championi* n. sp.

Pronotum flattened along the median line and without the oval basal impression of *championi*, the elytra with three much smaller tuberosities at the upper part of the declivity arranged as in that species. Body narrower and much more elongate, parallel, somewhat convex, black and dull, not very densely clothed with narrow and decumbent, dark brown scales, which are rather sparse and more hair-like on the head and pronotum; head somewhat rugosely

the fine scattered tubercles less flattened. Length 15.2 mm.: width 5.8 mm. (♀). Mexico (Jalapa). — Höge.....**inæqualis* Say

It is probable that Say's specimens came from the high country back of Vera Cruz, and, studying his description carefully and considering the acute and prominent basal angles of the prothorax, mentioned in the description, as well as the absence of any note on the pubescence, there can be but little doubt that the form here described is really the one which Say had before him.

punctured, obliquely reflexed at the sides; prothorax scarcely as long as wide, widest and laterally subangulate at basal third, the sides thence feebly converging and nearly straight almost to the obliquely rounded apical angles and more convergent and almost straight to the very obtuse, blunt and not at all prominent basal angles, the base very broadly, feebly lobed, the lobe broadly and rectilinearly truncate; surface with the two sinuous ridges very feeble, deeply impressed behind the middle at each side, the shining black tubercles moderately large, close-set throughout, except narrowly along the median line posteriorly and along the inner and outer slopes of the ridges, those areas being devoid of tubercles; elytra fully twice as long as wide, more than twice as long as the prothorax and much wider, parallel, circularly rounded behind, finely emarginate at the suture, the humeri obliquely subprominent, the sides behind them feebly sinuate, the surface of each with a feeble ridge at outer third from the base for two-fifths the length, another at inner third from just before the middle to the apex, becoming irregular behind and including the inner of the three tuberosities, and a very fine short ridge externally near the middle, the shining tubercles small and rather sparse; prosternum concave between the coxæ. Length 18.0 mm.; width 6.0 mm. Mexico (Jalapa).....* *longipennis* n. sp.

Pronotum elevated feebly along the median line, more broadly behind and separated from the sinuous ridges by broad feeble sinuous channels, the base not extending laterally beyond the basal angles of the elytra, the latter each with three tuberosities at the upper part of the declivity forming a more elongate triangle, with its longest base parallel to the suture2

2 — Body parallel, slightly convex, black, the decumbent fulvous squamiform hairs evenly, though not at all densely, distributed; head obliquely elevated at the sides, simply strongly punctured anteriorly and laterally but densely tuberculose posteriorly; prothorax widest before the middle, about a sixth wider than long, parallel, the sides broadly, subevenly arcuate to the slightly obtuse and not rounded but non-prominent basal angles, the base broadly, arcuately lobed, the two sinuous ridges moderate, gradually flattening out anteriorly, the surface thickly studded throughout with large convex and polished tubercles, wanting in the concavity just without the sinuous ridges near the middle; elytra evidently wider than the prothorax and twice as long, the humeri feebly oblique, extending laterally beyond the thoracic angles, the base broadly sinuate; surface unevenly and feebly pitted and with scattered tubercles, smaller and sparser than those of the pronotum, though equally large in single close lines on the summits of the ridges, the latter short and indefinable, one at the base of each elytron inside the median line, another, feeble, on the median line from near the base to about the middle and another, similarly feeble, outside the median line from basal fourth to behind the middle, the humeri also tumid; under surface finely, sparsely pubescent

and with small tubercles throughout. Male having the shining femoral swelling of the two posterior pairs rather coarsely, closely punctulate and feebly pubescent, that of the anterior pair very small and rugose, inconspicuous. Length 16.0 mm.; width 6.25 mm. Mexico (Guerrero), — Baron * *brevicollis* n. sp.

Body nearly similar but rather narrower and less convex, the decumbent squamiform fulvous hairs very sparse but condensed on the elytral tuberosities, the general aspect of the surface subglabrous and deep black; head punctate anteriorly and more coarsely and closely so laterally, very feebly and sparsely tuberculose basally; prothorax nearly as long as wide, parallel, the sides broadly rounded, more arcuate and converging anteriorly, broadly sinuate before the basal angles, which are right and slightly blunt but somewhat prominent; surface studded plentifully with large shining tubercles over all the elevations and near the sides, the sinuous ridges moderate; elytra but slightly wider than the prothorax and not quite twice as long, the humeri but feebly tumid and oblique, the basal angles falling exactly in longitudinal line with the thoracic angles, the base broadly sinuate; surface very coarsely and irregularly pitted, the ridges corresponding in position with those of *brevicollis* but much stronger, the shining tubercles scattered throughout, variable in size; under surface nearly as in *brevicollis*. Male with the elongate-elliptical shining femoral spots of the two posterior pairs rather finely, not densely punctulate and sparsely pubescent, that of the anterior pair very much smaller but elongate-elliptic, punctate and distinct. Length 15.3 mm.; width 5.75-6.1 mm. Mexico (Guerrero), — Baron.

* *subglabra* n. sp.

Body nearly as in *brevicollis* but with a much less abbreviated prothorax, which is in general similar in form but with the basal angles strongly, abruptly everted, acute and very prominent, and the shining black tubercles smaller and sparser, though similarly distributed, the sinuous ridges stronger and more abruptly flexed outward before the middle; elytra similar in form but with the rows of foveæ more regular, the pits deeper and more clearly visible, slightly elongate, the three basal ridges in echelon; subapical tuberosities and polished black tubercles nearly similar, the latter, on the whole, smaller though similarly unequal in size and decidedly less numerous, the humeri more prominently elevated; abdomen with much smaller and sparser tubercles. Length 17.5 mm.; width 6.75 mm. Mexico (Guerrero), — H. H. Smith.

* *prominens* n. sp.

Body smaller and much more depressed, deep black, feebly shining, very sparsely clothed with small narrow brown scales; head coarsely, rather closely and simply punctate, more finely posteriorly, the sides reflexed as usual; prothorax nearly as long as wide, widest slightly before the middle, the sides evenly rounding and broadly converging anteriorly, the apex two-thirds as wide as

the base, very feebly converging and straight posteriorly to the rectangular, somewhat blunt and scarcely prominent basal angles, the base broadly lobed in circular arc, sinuate laterally as usual; surface with the sinuous ridges strong, terminating at almost equal distances from base and apex, the median line also feebly and broadly tumid, except just before the middle, broadly flat along the sides from near the apex almost to the base, the shining tubercles peculiar, large, closely crowded along the ridges and scattered medially toward apex and broadly toward base and sides, wanting on the inner and outer slopes of the ridges and in the median depressed space before the middle, very low and flat throughout; elytra not at all wider than the prothorax and only three-fifths longer, broadly depressed suturally, the basal ridge at the middle short, the ridge at outer third from near the base to behind the middle of each strong, the short ridge at the middle externally very feeble, the three subapical tuberosities small but very strong and abrupt, the surface very coarsely, closely, confusedly and unevenly pitted throughout and with unusually large, very flat, irregular tubercles, larger and closer on the elevations; under surface with smaller flattened tubercles, the prosternum concave throughout along the middle. Length 13.5 mm.; width 5.28 mm. (♂). Mexico (Las Vigas), — Höge.....* *senex* n. sp.

These species are all allied to *inæqualis* Say, and *vicina* Sol., but *morbillosa* Sol., differs in its broader form and in having the basal ridge of the elytra anteriorly protuberant upon the pronotum; *championi* is described from two males and one female; *senex* and *subglabra* each from two males and *brevicollis* from a single male example, *prominens* from the female. The male seems to be much more common than the female and there is very little sexual difference in the general form of the body, the female being very slightly the stouter and perhaps usually with the vestiture somewhat denser. *Longipennis* is described from the female, and when compared with the female of *exsculpta*, with which it is closely allied, is seen to differ in its much larger size, in the finer, sparser and more hair-like vestiture of the head and pronotum, shorter medial ridge of the elytra and differently arranged prominences near the apex; the scales on the head of *exsculpta* are broad and denser and the periphery of the elytra posteriorly more coarsely and strongly crenulate.

Noserodes n. gen.

This genus is allied rather closely to *Nosoderma*, but has the small mentum rather more truncate at apex, the ligula shorter

and broader, with the palpal foveæ only just exposed, the last palpal joint much larger, the ninth antennal joint differing but little from the eighth, the combined and oval tenth and eleventh joints relatively much larger, the abdominal excavation still larger and with more depressed, even floor, and the elytral tuberosities altogether different. The small shining tubercles of the upper surface are much finer, and the surface is concealed by a generally denser earthy indument, from which project numerous longer, stiffer, recurved and squamiform hairs or narrow scales, usually fulvous in color. The elytra have a feeble lateral ridge from the humeri, terminating at the anterior limit of the apical arcuation in a prominent marginal tuberosity, somewhat as in *Phellopsis*, and there is also a submedian ridge on each elytron, terminating, at the summit of the apical declivity, in another prominent tuberosity. The type species before me may be described as follows:—

Body rather slender, parallel, depressed, black, clothed evenly and rather closely with narrow recurved, subdecumbent and fulvous scales, the surface between them largely concealed by earthy indument; head with the long oblique sutures distinct, gradually elevated laterally, nearly smooth and dull but with some scattered black granules; prothorax not quite as long as wide, the sides parallel and nearly straight, arcuately converging anteriorly to the rounded apical angles, abruptly and rather strongly converging and almost straight in basal third, becoming feebly sinuate before the basal angles, which are right and slightly prominent, the base feebly arcuate, closely applied to the base of the elytra; surface feebly elevated and broadly convex along the middle, except toward apex, and with two impressions at each side of the ridge, the four forming a central square, also more feebly impressed in the middle toward the sides and toward the basal angles, the black tubercles small, evenly distributed and moderately sparse; elytra a little wider than the prothorax and three-fourths longer, the humeri rather prominent but broadly, obliquely rounded, the sides behind them sinuate for a short distance, then parallel and feebly arcuate to the strong subapical tuberosity, parabolic apically, feebly sinuate at the suture; surface with a few rows of very coarse but indistinct, moderately impressed and irregularly rounded foveæ, each elytron with a median ridge from the base to apical fourth, where it ends abruptly in a more pronounced tuberosity and a short ridge from the base to basal fifth or sixth, between the principal ridge and the feebly elevated suture, the polished black tubercles very fine and remotely scattered; under surface with short, coarse, sparse hairs and numerous small tubercles, which are a

little coarser on the prosternum than elsewhere. Length 15.0 mm.; width 5.6 mm. Costa Rica (Chiriqui)...* *squalidus* n. sp.

The single specimen is a female, so that I am unable to describe the secondary sexual characters of the male, which, however, undoubtedly affect the femora as in the preceding genera. This genus will include also such species as *Nosoderma zunilensis* and *guatemalensis*, and perhaps, though less certainly, *venusta* and *lutosa*, recently described by Mr. Champion. *Guatemalensis* differs from *squalidus* in its much broader form, smaller, deeper and very much more distinct serial foveæ of the elytra, and in the rounded — not conical — subapical tuberosity at the side margin of each, also in the flat and not elevated, suture. Notwithstanding its much narrower and more elongate form and correspondingly different facies, I believe that *Nosoderma sparsa* Champ., will enter this genus as an aberrant modification.

Phellopsis Lec.

In its 11-jointed antennæ, having a broader club composed of three perfectly free joints, less anteriorly narrowed and more transversely parallelogrammic mentum, which is simply obliquely truncate at the apical angles, transversely tumid, dense and coarsely sculptured ligula and complete absence of the remarkable transverse excavation in the apical margin of the penultimate ventral segment, characterizing all of the preceding genera, *Phellopsis* is widely isolated. It also inhabits a totally different zoölogical faunal region, and its nearest relatives will probably be found in Siberia and Japan. I have been unable to discover any of the singular male sexual characters affecting the femora in the preceding generic types, and do not know of any certain way to distinguish the sexes externally. No new forms have come to light since my recent revision (l. c., p. 44), to which the reader is referred.

Tribe USECHINI.

In this tribe the body is very small in size, when compared with the two preceding, though closely allied in general facies and in its coarsely sculptured, rough and subopaque integuments. The Usechini differ considerably in structure also, having the

eyes coarsely faceted, though flattened and widely separated above, as in *Nosodermini*, and so constantly covered by the prothorax that it is very rarely an example can be found, in which they are even partially observable. The large deep antennal fossæ are at the sides of the prothorax, wholly invisible from below and also invisible from above anteriorly, though broadly and dorsally exposed and enlarged posteriorly. The antennæ are short, thick and compact throughout, the last three joints wider. The tribe is confined to the true Pacific coast fauna and there is but a single genus, which can be defined as follows:—

Body oblong-oval, moderately depressed, the mouth-parts small; mentum very small, completely exposing the maxillæ at the sides and the ligula in front, parallel at the sides in basal half, trapezoidal in front; ligula small, narrow; palpi slender and small in size, the last joint of the maxillary elongate-fusiform, as long as the two preceding combined, obtusely pointed and hollowed at tip, the basal joint minute; mandibles slender apically, deeply bifid at tip, the lobes very acute, the upper but little the longer; antennæ short, stout, 11-jointed, the basal joint smaller than the second and deeply seated in the antennal fovea, the second as long as the next two combined; epistoma short, broadly truncate, the labrum short and transverse, truncate; scutellum minute, forming a long and very slender pointed wedge between the elytra, the latter moderately inflexed, without true epipleuræ but but with the inflexed surface rapidly broadening, flat and marked externally by a rough subcariniform line toward base; metasternum about as long as the first ventral, the episterna extremely narrow and linear; ventral sutures all very coarse and deeply excavated throughout, the fifth segment with a large and moderately deep, transverse impression, interrupted at the middle, the lateral margin of all the segments narrowly tumescent and separated from the rest of the surface by a fine deep sulcus, which is obsolete only at the extreme apices of the segments; coxæ rather widely separated, the anterior acetabula surrounded by an ambient prosternal gutter, the intercoxal process short, horizontal, free, widely truncate, with its median part between the gutters excavated and slightly more advanced posteriorly; legs rather short and moderately stout, the tibial spurs obsolete or excessively small, the tarsi short but slender, with stiff inclined hairs beneath, the basal joint of the posterior as long as the next two combined and a little shorter than the fourth, the claws rather small and slender. [Type *U. lacerta* Mots.].....**Usechus**

The above description is very detailed, as I am unaware of any even passably full diagnosis of this remarkable genus.

The description of the antennæ given by LeConte and Horn in the classification, is unaccountably erroneous.

Usechus Mots.

The species of this genus are few in number and live under the loose bark of fallen trees, the two before me may be briefly defined as follows:—

Form stout, oblong-oval, blackish-piceous to paler in color, rough but with the surface somewhat shining; head small, simply, moderately coarsely and sparsely punctate above and beneath, each puncture with a short stiff yellow hair; prothorax as long as wide, widest and laterally subangularly prominent at the middle, the sides thence strongly converging and nearly straight to the apex and feebly converging and bisinuate to the basal angles, which are right and not rounded; base broadly, arcuately lobed, sinuate near the angles, much wider than the apex, which is evenly and feebly sinuato-truncate from side to side; disk feebly impressed along the middle from the apex, more broadly posteriorly, the impression obsolete near basal third, the sides of the impression feebly prominent, the entire surface coarsely but not densely tuberculose and with an elongate-oval pit at the middle of the base, the side margins strongly reflexed throughout the length; prosternum with coarse tubercles like those of the upper surface, each tubercle throughout with a stiff yellow hair; elytra one-half longer than wide or less, a little wider than the prothorax and three-fourths or more longer, the sides parallel and feebly arcuate from the unrounded, reflexed humeri to the subapical tuberosity, the apex between the tubercles parabolic; surface with coarse grooves, which are very coarsely punctate, the alternate intervals carinate, the short yellow hairs more abundant on the ridges; abdomen very coarsely, not densely punctate. Length 3.1–5.5 mm.; width 1.4–2.1 mm. California (Mendocino to Sta. Cruz).

lacerta Mots.

Form less stout and very much smaller in size, brown-black to piceotestaceous, dull in lustre; head finely and sparsely punctate; prothorax nearly similar in form but with the impression obsolete near the middle, with the basal pit deeper and more circular, the antennal fossæ extending further posteriorly and to a slight distance behind the middle, and the tubercles above and beneath smaller, feebler, denser and less well defined, the pubescence longer and rather finer; elytra similar in general form and coarse sculpture, the ridge nearest the suture much swollen at base as in *lacerta*, the pubescence longer and more nucleated in spots along the ridges and denser on the basal enlargement of the inner ridge; abdomen strikingly different in sculpture, being almost impunctate toward the sides and much more finely punctured elsewhere, except on the basal segment; impression of the fifth

segment much feebler, almost obsolete. Length 2.9-4.3 mm.; width 1.18-1.6 mm. California (Humboldt Co.)...**nucleatus** Csy.

Both of these species are represented before me by large series, but I have not recognized any external secondary sexual characters. The great extension of the prosternum before the coxæ and its pronounced tuberculose sculpture, similar to that of the upper surface, while the entire remainder of the under surface is simply punctate, is a rather noticeable character of the genus.

Tribe ARÆOSCHIZINI.

In this tribe and the Stenosini, with which it is usually confounded by reason of the general form of the body and antennæ, the fifth ventral segment loses the very peculiar transverse excavation characterizing the three preceding tribal groups and becomes unmodified, its surface corresponding with the general convexity of the abdomen; it is rounded behind and a little shorter than the two preceding combined, but, it should be remarked, there is also an entirely different peculiarity of the abdomen in the present tribe, the third suture being very strongly sinuate and notably more strongly so than the fourth. The tribe resembles the Stenosini in the small size and elongate, moderately convex form of the body, thick perfoliate setose or squamose antennæ and some other characters, but differs in the complete absence of elytral epipleuræ, as in the three preceding tribes, these being very well developed in the Stenosini, in the presence of elytral ridges, which are wanting in that tribe, and in the much larger mentum, concealing the entire ligula. With the Adelostomini, however, it is very much more closely allied, differing in its smaller mentum, exposing the maxillæ at the sides, the maxillæ being completely concealed but the ligula uncovered in that tribe, and in the very small terminal joint of the antennæ, but resembling it in the absence of elytral epipleuræ and presence of dorsal ridges. We have but a single genus as follows:—

Form elongate, moderately convex, the hind body pedunculate, moderately inflated, elongate-oval, without humeral angles, the hind wings wanting; head elongate-oval, the clypeus very large, as long as the entire remainder but not separated by a transverse suture, the lateral oblique impressions deep, the lateral lobes very

short and reflexed, the median part broadly rounded anteriorly, with its apex broadly sinuate and finely, obtusely pectinate, covering completely all the mouth-parts; mentum rather large, flat, slightly transverse, broadly truncate at apex, narrowed toward base, exposing the maxillæ but entirely covering the short and extremely broad ligula, the palpi slender, the last joint of the maxillary elongate-oval, as long as the two preceding combined; basal margin of the buccal cavity reflexed, the side-pieces acute and prominent; mandibles bifid at tip; eyes completely divided, coarsely faceted, the upper part elongate, sunken deeply between the prominent lateral margin and a strong supra-orbital ridge, the inferior part very small, consisting of three to five facets; antennæ about as long as the head and half the prothorax, stout, compressed, perfoliate, cylindric, the tenth joint a little larger, the eleventh very small and partially within the apex of the tenth, clothed throughout with elongate yellowish scales; neck narrow, less than half as wide as the head; prothorax cordate, small, slightly elongate as a rule; scutellum triangular, scarcely passing the basal declivity of the elytra, the latter not margined at base, costate, feebly inflexed beneath; prosternum well developed before the coxæ and slightly tumid along the middle, the intercoxal process constricted anteriorly, expanding and deflexed behind; metasternum shorter than the first ventral, the episterna narrow, with the suture represented by a more or less impressed series of coarse punctures; abdomen convex, the first two sutures nearly straight, the third strongly, the fourth less strongly, sinuate in even arc; coxæ globular, moderately separated, the posterior slightly wider than long; legs rather short, stout, the tarsi short and stout, longer and less stout in the *armatus* group, the basal joint sometimes but little longer than the second, the claws small, slender and arcuate. Sonoran regions. [Type *A. costipennis* Lec.].....**Aræoschizus**

A full diagnosis of this genus, also, is given herewith, because its true affinities seem to have escaped LeConte, Lacordaire and Horn, who compare it with *Stenosis* and not with *Adelostoma*.

Aræoschizus Lec.

This genus is widely diffused throughout the Sonoran fauna of our southwestern States and northern Mexico, from which latter region a species was described by Mr. Champion, in the "Biologia," under the name *mexicanus*; the various species occur under stones in very dry regions and are said to be very sluggish in their movements and sometimes found with ants. The material in my cabinet appears to pertain to eleven species, which may be recognized by the following descriptions:—

Vestiture of the elytral ridges erect and bristling; femora unarmed throughout.....2

- Vestiture decumbent or strongly inclined and not bristling.....7
 2 — The vestiture of the ridges having the form of stiff hairs.....3
 The vestiture of the ridges formed of elongate scales.....6
 3 — Eyes widely divided, more sunken, the upper part narrower, the lower composed of only three or four facets, the canthus evenly joining the supra-antennal prominence, without break.....4
 Eyes more convex, wider, less sunken, only barely divided by the posterior canthus, which becomes very fine anteriorly and subdisconnected from the supra-antennal prominence, the lower lobe of five facets and not so sunken.....5
 4 — Body a little larger and stouter, dark brown, densely and roughly punctured and with narrow fulvous scales anteriorly; head oblong-elongate, rather abruptly constricted at base, the angles evident though rounded, the sides from the eyes to the angles feebly converging and but slightly arcuate; prothorax much narrower and shorter than the head, three-fourths as long as the latter, widest near apical third, the sides rounded anteriorly, sinuato-converging posteriorly, the apex and base truncate and densely fringed with porrect fulvous squamules as usual, the surface convex, impressed medially near the base; elytra barely twice as long as wide, twice as wide as the prothorax, arcuately narrowed at base and apex, a little more gradually toward the latter, the sides parallel and feebly arcuate, the bristles becoming yellow and squamiform behind, darker and hair-like elsewhere; intervals between the ridges flat, coarsely, biserially punctate, with a series of widely spaced setæ between the rows; abdomen sparsely punctate. Length 3.7 mm.; width 1.07 mm. California (Vallecito, — near Julian).

costipennis Lec.

Body small, more slender, dark rufo-piceous in color, the anterior parts rather sparsely squamose, more finely and sparsely and less roughly punctured than in *costipennis*; head rather large, elongate-oval, more gradually narrowed though more or less strongly rounded toward base, the sides scarcely visibly converging from the antennal prominences to the basal arcuation; prothorax relatively narrower and more elongate than in *costipennis*, four-fifths as long as the head and much narrower, much longer than wide, formed nearly as in *costipennis* but relatively less narrowed toward base, more narrowly impressed along the median line almost in basal third; elytra evenly oval, very elongate, distinctly more than twice as long as wide, the bristles abruptly pale and squamiform near the apex, the double series of coarse punctures separated by a widely spaced series of inconspicuous setæ, the costæ nearly as in *costipennis*; abdomen rather coarsely and sparsely but more distinctly punctured, the surface smoother. Length 3.2–3.5 mm.; width 0.77–0.98 mm. Arizona (Tuçson), — H. F. Wickham.

tenuis n. sp.

- 5 — Form slender, the smallest known species of the genus, dark rufo-piceous, the punctures and scales of the anterior parts small and

rather sparse; head large, elongate-oval, smoother and more shining than usual, the sides strongly converging and almost evenly arcuate from the eyes to the neck; prothorax very small, three-fourths as wide as the head and two-thirds as long, elongate, widest near apical third, where the sides are subprominently rounded, thence converging and nearly straight to the base, the truncate base and apex fringed as usual; surface convex, feebly impressed along the median line throughout, very finely in the centre, more broadly toward apex and base; neck two-fifths as wide as the head; elytra less elongate than in *tenuis*, though fully twice as long as wide and more than twice as wide as the prothorax, evenly oval, sculptured nearly as in the two preceding, the spicules of the ridges and serial interspaces similar but, at apex, not quite so evidently squamiform and but little paler; abdomen smooth and polished, moderately coarsely, sparsely punctate. Length 2.9 mm.; width 0.72 mm. California (Palm Springs).....*exiguus* n. sp.

6 — Form rather short, stout and convex, the anterior parts densely, rather roughly punctate, finely, somewhat sparsely squamulose and blackish-brown in color, the hind body pale red-brown; head large, suboblong, widest at the antennal prominences, the sides thence evidently converging and nearly straight to the basal angles, which are evident and not very rounded, the base arcuately subtruncate; eyes well developed, widely divided, the upper lobe of about 21, the lower of 5 coarse facets, the surface canaliculate along the median line in less than basal half; prothorax only slightly narrower but very much shorter than the head, not longer than wide, widest near apical third, where the sides are evenly rounded, thence strongly converging and sinuate to the base; periphery at ends and sides similarly and densely fimbriate with long erect scales; surface with two fine, straight and parallel ridges from apex to base, separated by nearly a third of the width, each of which has a dense erect fringe like that at the sides; elytra oval, not quite twice as long as wide, not quite twice as wide as the prothorax, the parallel sides rather arcuate, the surface with ridges and double series of coarse punctures as in the preceding species, the close, erect and bristling fringe along each ridge pale flavate in color, composed of narrow claviform scales, with their apices bent posteriorly and their posterior edges throughout their length apparently thin, transparent and membranous; a few similar scales are also scattered along the flat intervals between the rows of coarse punctures; abdomen unusually coarsely, very closely punctate and dull. Length 3.6–3.8 mm.; width 1.15 mm. Arizona (Tuçson).....*fimbriatus* Csy.

7 — Femora wholly devoid of denticle.....8

Femora with a small acute denticle beneath beyond the middle, except the posterior femora, which are not denticulate..... 13

8 — Intervals between the rows of coarse punctures of the intercostal depressions flat and wholly devoid of punctures or squamules...9

- Intervals usually somewhat elevated, punctate and bearing squamules similar to those of the ridges.....12
- 9 — Pronotum broadly, feebly and subequally sulcate along the middle from apex to base.....10
- Pronotum not sulcate, though generally feebly impressed near the base.....11
- 10 — Body moderately slender, the elytra flattened above, dark rufopiceous in color; head large, much elongated, the sides distinctly converging and feebly arcuate from the antennal prominences to the broadly rounded basal angles, the base extending but little laterally beyond the neck, the surface not sulcate basally; eyes above elongate and narrow, small beneath as usual; prothorax relatively very small, three-fourths as wide and two-thirds as long as the head, widest anteriorly, where the sides are rounded, thence strongly converging and broadly sinuate to the base, the sides fringed with long, close-set, yellow squamules but not the apex, base or dorsal ridges, the surface sparsely squamulose, densely punctate like the head, with two longitudinal obtuse ridges, separated by an impressed sulcus throughout the length; elytra elongate, evenly oval, evidently more than twice as long as wide, the yellowish squamules of the ridges close-set and subdecumbent, the marginal series only present in apical third; abdomen shining, sparsely and not very coarsely punctate. Length 3.6 mm.; width 0.9 mm. California (Inyo Co.).....**sulcicollis** Horn
- Body shorter and much broader, the elytra duller, dark castaneous in color throughout; head large but much less elongate, densely punctate, the sides more strongly converging and evenly arcuate from the eyes to the neck, the yellowish squamules distinct, not dense; eyes above much shorter than in *sulcicollis* and with fewer facets, similar beneath; prothorax not as small as in *sulcicollis* and much less elongate, only slightly longer than wide, the lateral fringe similar, the apical squamules rather evident and with others scattered over the low obtuse entire dorsal ridges, the surface densely opaque; elytra oval, depressed, not at all more than twice as long as wide, the sides rounding to the base, straighter and less rapidly converging toward apex, the latter very narrowly obtuse, the yellow squamules along the ridges close-set and rather broad, subdecumbent, the marginal series as in *sulcicollis*; abdomen rather more coarsely but sparsely punctured. Length 3.4-3.5 mm.; width 1.0 mm. Southern California.....**simulans** n sp.
- 11 — Form moderately slender, the size larger than in the two preceding species, piceous-black, dull or subopaque; head much less elongate, only slightly longer than wide, the sides parallel and straight near the middle, abruptly converging and nearly straight toward base to the neck, densely punctured, with small scattered squamules, the occiput narrowly and deeply canaliculate; eyes above shorter and broader than usual, below nearly rounded, very small, of about four facets; prothorax large, only slightly shorter and narrower

than the head, widest anteriorly, where the sides are evenly rounded, thence moderately converging and sinuate posteriorly, becoming parallel in basal fourth, the sides and the truncate apex and base densely fringed with short pale squamules, convex, coarsely, densely punctate, with the scattered squamules closer near the median line toward base, the surface narrowly and moderately impressed along the median line, except anteriorly; elytra barely twice as long as wide and not quite twice as wide as the prothorax, the sides rather gradually rounding toward base and still more gradually and straighter toward the bluntly rounded apex, parallel and almost straight, the yellowish squamules of the ridges small, the marginal series confined to apical third or fourth; surface moderately convex, the punctures of the regular double series coarse as usual, rather close-set; abdomen smooth, somewhat coarsely and not very sparsely punctate. Length 3.7-4.2 mm.; width 0.85-1.2 mm. Arizona (Tuçson).....**regularis** Horn

Form rather slender, moderately convex, piceous or blackish, rather dull in lustre; head moderately large, evidently longer than wide, the sides from the antennæ to behind the eyes moderately converging and nearly straight, then broadly, evenly rounding and converging to the neck, the surface rather closely punctate and with the usual scattered yellow squamules, the occiput very feebly impressed at base; eyes above narrow, of about 19-20 facets, beneath of 5 facets; prothorax distinctly narrower and shorter than the head, distinctly elongated, widest and narrowly rounded at the sides anteriorly, thence very moderately, subsinuously narrowed to the base, fimbriate about the entire contour, the lateral hairs shorter and thinner than those at the truncate ends; surface convex, even, not very densely punctate, with subevenly scattered squamules, feebly impressed medially toward base; elytra rather more than twice as long as wide and fully twice as wide as the prothorax, the flavate squamules along the ridges and the double series of coarse punctures nearly as in *regularis*, the punctures less close-set in the series as a rule; abdomen similarly punctate, the propleuræ very sparsely. Length 3.8-3.9 mm.; width 1.0 mm. Texas (El Paso).....**simplex** Csy.

12— Body moderately slender and convex, somewhat as in *regularis*, opaque anteriorly, densely punctured and blackish-castaneous, the elytra more shining and rufescent as usual; head but little longer than wide, parallel and somewhat arcuate at the sides to the broadly rounded basal angles, the base broad, the occiput not impressed; eyes broadly divided as usual, the upper part long and narrow, the lower minute; scattered squamules short but broad; prothorax larger than usual, evidently shorter but only slightly narrower than the head, widest behind apical third, where the sides are subprominently rounded, thence moderately converging and nearly straight to the base, having a dense short fringe of coarse squamules throughout the contour, the surface convex, flattened narrowly along the middle and evidently impressed near the base, where

the squamules, which are rather close throughout, become denser at each side of the middle; elytra barely twice as wide as the prothorax and scarcely twice as long as wide, of the usual oval form, the double series of coarse punctures separated by a scarcely elevated row of squamiferous punctures, the squamules similar to those of the more elevated ridges, though scarcely so close-set; propleuræ only moderately sparsely punctate, the abdomen alutaceous and micro-reticulate, somewhat coarsely, sparsely punctate. Length 3.9 mm.; width 1.1 mm. Arizona (near the southern boundary).....**decipiens** Horn

- 13—Form rather stout, moderately convex, rather pale red-brown, the anterior parts darker; head moderately large, a little longer than wide, the sides from the antennæ moderately converging and feebly, evenly arcuate to the basal angles, which are distinct though rounded, the base broadly truncate, the occiput only minutely impressed at the extreme base; surface above and beneath, like that of the prothorax, coarsely and densely punctate and opaque, the fulvous squamules rather dense and conspicuous, particularly close, semi-erect and broadly dense along the longitudinal ridges of the pronotum; eyes longitudinal as usual above, very minute and consisting of three facets beneath; prothorax but little narrower, though distinctly shorter, than the head, as wide as long, widest anteriorly, where the sides are evenly rounded, thence rather strongly converging and nearly straight to the base, the sides with a dense erect fringe which is wanting at apex and base, the yellow squamules very dense in two lateral and two median spots at the base, the surface deeply and obtusely sulcate from base to apex; elytra three-fourths longer than wide, fully twice as wide as the prothorax, oval, the sides strongly and rapidly rounding to the base but much more gradually behind, the ridges acutely and strongly elevated, the two punctured series of the intervals separated by a scarcely elevated line of squamiferous punctures which are almost similar to those of the ridges, the punctures of the series becoming obsolete toward apex; abdomen dull, finely, not very sparsely punctate. Length 3.6–4.0 mm.; width 1.1–1.2 mm. California (Inyo Co.).**armatus** Horn

Form still stouter, dull, the elytra but little paler though less dull, red-brown in color; head distinctly longer than wide, the epistoma more anteriorly extended than in *armatus*, the sculpture, squamæ, eyes and basal impression of the occiput similar, the sides more parallel, the angles more broadly rounded and transverse at base to the neck; prothorax very slightly narrower but much shorter than the head, scarcely as long as wide, widest near apical third, with the sides broadly rounded, becoming but feebly converging and very gradually almost straight posteriorly, the dull rugose surface, squamæ, lateral fringe and basal tufts as in *armatus*, the median sulcus similarly entire but narrower and very much more feeble, not marked along the sides by such close-set squamules; elytra rather broader, barely three-fourths longer than wide,

similarly somewhat shouldered, the ridges less elevated and the series of squamiferous punctures, separating the series of coarse punctures, rather more prominent, so that all the series of pale close-set squamæ are more nearly equal in elevation; punctures of the series distinct to the apex, though becoming notably smaller posteriorly; abdomen less dull, rather coarsely, somewhat sparsely punctate; spicule beyond the middle of the under surface of the anterior femora a little larger than that of the intermediate femora as in *armatus*. Length 3.9-4.1 mm.; width 1.18-1.25 mm. Wyoming (Green River), — H. F. Wickham...*duplicatus* n. sp.

Although the coarse punctures of the elytral series generally become materially less coarse toward apex, due to the contraction of the elytra, *armatus* is the only one in which they become obsolete, or nearly so, for a long distance from the apex, this being a very remarkable distinguishing character of that species; the punctures become unusually small, for a much shorter distance from the apex however, in *decipiens* also. *Duplicatus* was confounded with *armatus* by Dr. Horn, though they are strikingly different in many characters, but especially in the relative degree of prominence of the elytral ridges and in the nature of the punctuation posteriorly. In *armatus* the squamæ of the intermediate lines appear to be less securely attached than those of the principal ridges, and I have one specimen in which they have become entirely removed, except in a portion of one line, while those of the prominent ridges are undisturbed; the tuberculiform punctures bearing them can always be easily observed, however, so that this character can be verified with a little care in observation.

Tribe DACODERINI.

While widely removed from any other, this tribe betrays an affinity with the Aræoschizini, and particularly the Adelostomini, in the antennæ, which are similarly stout, cylindric and perfoliate, differing from the first only in having the eleventh joint still more deeply sunken within the tip of the tenth, though perfectly visible from an oblique anterior view, thus proving that the antennæ are really 11-jointed and not 10-jointed as generally stated. In the Adelostomini the eleventh joint has sunken still deeper within the capacious apex of the tenth joint, in such manner as to have entirely disappeared, leaving only its

wide flat sensitive apex to form the floor of the shallow excavation. In *Adelostoma*, therefore, the antennæ are only apparently 10-jointed but might be so considered, in view of the complete disappearance of the eleventh within the tenth, a process of withdrawal begun in *Aræoschizus* and carried still further in *Dacoderus*. The emarginate clypeus may also recall the two genera mentioned, and the large mentum, wholly covering the maxillæ and emarginate at apex, is somewhat similar to that of *Adelostoma*. The excavated abdominal sutures and slight transverse fossa of the last segment, suggest some relationship with the Usechini, and the well-defined epipleuræ, some alliance with Stenosini, but the *Clinidium*-like body, remarkable cephalic and pronotal fossæ and contiguous anterior coxæ, are special characters that widely isolate the tribe from any other living type at present known. The single genus may be rather fully described as follows:—

Body slender, depressed, glabrous; head deeply and abruptly constricted at base, broadly produced and subquadrate before the eyes, the antennal prominences large and convex, the front deeply excavated anteriorly between the prominences, the anterior wall of the excavation deeply cleft at the middle, giving communication with a large deep excavation in the rather small, transverse and deflexed clypeus, the two strongly elevated lateral lobes of which, thus formed, are flattened, ciliate on their inner edges and finely punctate; this clypeus is separated from the front by a transverse suture; labrum small, transverse, emarginate and exposed; mandibles small, slender toward tip, canaliculate beneath and bifid; mentum large, transverse, semi-circularly rounded posteriorly, exactly fitting the semi-circular buccal opening and concealing the maxillæ, subtransverse at apex though with a small deep median emargination, the ligula large, broad, densely chitinized and sculptured, obtriangular, the palpi slender, the last joint of the maxillary elongate-oval, obtusely and obliquely pointed at tip; eyes near the base of the head, coarsely faceted, elongate, not divided, situated at the middle of the vertical sides of the head, on a bracket formed by an extension of the under surface and but slightly inclined in plane, giving no downward vision whatever; neck rather narrow, abruptly constricted; antennæ stout, with transverse and submoniliform, perfoliate joints, sparsely setose, the ninth and tenth joints a little larger, the third as long as wide; prothorax elongate, suboval, crossed near basal third by a broad and very deep sulcus, which is closed at each side by an irregularly bulbiform part of the general surface, the median line deeply canaliculate throughout, the canaliculation crossing the

transverse sulcus; line of demarkation between the pronotum and propleuræ impressed throughout; prosternum very long before the coxæ and transversely impressed at about the middle; scutellum minute but evident, elongate-oval; elytra not margined at base, not costate but with a flat sutural elevation, feebly embracing the sides of the body, the epipleuræ narrow though entire and with a continuous flat raised line at their lower margin; abdominal sutures perfectly rectilinear throughout, deep and sulciform, the fifth segment very short, transversely impressed somewhat as in *Usechus*, the first segment very long; coxæ small, the anterior contiguous, the middle narrowly, the posterior rather widely, separated; metasternum long though shorter than the first ventral, the episterna very narrow, linear; legs rather short, moderately stout, the tibial spurs short but distinct, the hind tarsi stout, cylindric, much shorter than the tibiæ, sparsely spinulo-setose beneath, the first joint much shorter than the next two combined, the claws small and slender. [Type *D. striaticeps* Lec.].....**Dacoderus**

I only know this genus from the Sonoran fauna of our extreme southwest, though it is said to occur also in the West Indies, but, if the latter form, described under the name *dominicensis* by Horn, is truly endemic, it is probably not strictly congeneric, although doubtless assignable to the same tribe.

Dacoderus Lec.

The contiguous anterior coxæ of this genus constitute an exception in the entire family Tenebrionidæ, so that its general isolation can be well appreciated, although there are some characters, as above defined, that conclusively prove its general position to be in the series of small slender forms allied to *Aræoschizus*, *Adelostoma* and *Stenosis*. The transverse sulcus of the pronotum, traceable also as a depression of the prosternum, is remindful of some Histerids; it is a singular repetition, in the second segment of the body, of the sulcus and tuberosities of the first segment or head, the frontal modifications of which are without a parallel known to me. Our single species is the following:—

Body very elongate, parallel, slender and depressed, polished, glabrous, the anterior parts with very few short sparse hairs, dark castaneous in color; head longer than wide, dilated and laterally oculate in basal half, the surface above longitudinally and coarsely plicate, flat, gradually declivous anteriorly to the frontal excavation, canaliculate beneath along the median line, the antennæ not quite as long as the head and prothorax, the latter elongate, evidently longer than

the head but not quite as wide, widest near the apex, where the sides are strongly rounded to the very briefly tubulate and truncate apex, gradually converging to the broadly arcuate base, which is much wider than the apex, the sides prominent at the bulbiform ends of the sulcus, the surface longitudinally plicate except toward the sides, where it becomes sparsely and simply punctate; elytra at least one-half longer than the anterior parts, more than two and one-half times as long as wide and fully three-fourths wider than the prothorax, circularly emarginate at base, the sides feebly arcuate, gradually and feebly converging from before the middle to the rapidly and obtusely rounded apex, broadly rounding at base to the humeral angles, which are not rounded and somewhat exposed, the surface flat above, rather abruptly almost vertical at the sides, broadly, flatly and feebly elevated at each side of the suture, these flat surfaces each with an even medial series of fine punctures, the general surface with coarse and elongate, moderately close punctures, becoming gradually finer posteriorly; abdomen feebly convex, finely, sparsely punctate medially, coarsely and closely toward the sides and on the last two segments. Length 3.9-4.2 mm.; width 0.9-0.95 mm. Arizona (Tuçson), — H. F. Wickham*striaticeps* Lec.

This species occurs under stones in hot dry places, from southern California to southeastern Arizona, and, according to Dr. Horn, feigns death very persistently when disturbed; it is probably more for this reason that it is seldom taken, than because of its actual rarity. The elytral punctures are confused, but form also two feebly defined irregular discal series, evanescent posteriorly on each elytron.

Tribe TYPHILUSECHINI.

A singularly isolated minute species necessitates another special tribal group under the above name. The large convex clypeus, broadly sinuate at tip and concealing all the mouth parts from above, and the convex abdomen, with large and unmodified fifth segment and strongly sinuate third suture, certainly indicate an alliance with the Aræoschizini, but the antennæ are wholly different, and the reception of the antennæ in long deep cephalic grooves ending in the anterior part of the propleuræ, is a character wholly without parallel in the subfamily. The type species approaches the completely blind condition more closely than any other Tenebrionid that can be called to mind at present. The genus may be described as follows:—

Body parallel, evenly and moderately convex, feebly sculptured; head quadrate, parallel, not in the least narrowed at base, the surface evenly convex toward the sides and apex, the antennal tuberosities large and very feeble, the oblique sutures fine and long, the clypeus convexly declivous anteriorly, with its apex broadly sinuate and its apical edge thinner, translucent and subcoriaceous; mandibles small, bifid at tip; mentum moderate, subquadrate, parallel, wider than long, exposing most of the maxillæ at the sides but concealing the narrow ligula, its apex transversely bisinuate; palpi slender, the last joint of the maxillary narrow, elongate-oval, circularly and minutely truncate at tip, longer than the two preceding combined; eyes extremely minute, on the upper surface near the base and at some distance from the obtuse sides of the head, consisting of a slender oblique slit, closed at the middle by the intrusion of its sides, the anterior part very small, rounded and enclosing a very few extremely minute crystalline facets, the posterior part elongate, lenticular and extremely minute with the facets not distinct; antennæ rather slender, compact, cylindric, as long as the head, 11-jointed, the two basal joints a little thicker, outer joints of the funicle increasing very slightly in width, the last three joints broader, forming a loose and subcompressed club, the last joint very much longer than the preceding but barely as wide and obtusely rounded at tip, the fossæ narrow and very deep, rectilinear, approaching the sides of the head behind and continuing onto the anterior part of the propleuræ, where they become larger and deep but less sharply defined; prothorax obtrapezoidal, thickly beaded at the sides, with a short strong carina at each side of the middle at base, near outer fourth; scutellum triangular, confined to the sloping base of the elytra, the latter each with a thick basal margin externally, arcuately, internally receding from the base, to inner third, where it continues posteriorly as an excessively minute raised line not quite to the apex; there are also three other partial raised threads on each clytron, the side margins at the epipleuræ conspicuously concave and with a series of large impressed foveæ; median part of the elytral base convexly declivous anteriorly, the clytra moderately embracing the body at the sides, the inflexed part occupied wholly by the wide, flat and entire epipleuræ, which are margined beneath by a narrow flat raised line; prosternum long before the coxæ, the metasternum long, very much longer than the first ventral, the episterna moderately narrow, increasing in width posteriorly, the suture straight and very feeble; abdomen convex, the last three segments more tumid at the sides and intruding somewhat upon the epipleuræ, the sutures fine, straight, the third broadly sinuate, becoming transverse laterally; coxæ very small, the anterior rather narrowly, the posterior very widely, separated; legs short, moderately stout, the tibiæ increasing in width from base to apex, without terminal spurs, the tarsi short, cylindric, compact, with a few short setiform spines beneath, the first three joints of the posterior sub-

equal in length and together but little longer than the fourth, which is bent downward toward tip, the claws very small, rapidly acuminate and feebly arcuate. [Type *T. singularis* Lin.].

Typhlusechus

The above description is very detailed and will probably serve for comparison with related genera, in any direction, however unsuspected at present. Linell places this tribe in the Asidinae, but it has so much affinity with the tribes here discussed, that I prefer to treat it with them, and moreover, there appears to be no trochantin attached to the middle coxæ.

Typhlusechus Linell.

It is probable that the minute species of this genus occur in very secluded stations, under deeply imbedded stones or possibly with ants; the original notes of Mr. Linell are not before me at present. The cotype here described was very kindly given me by Mr. Chas. Fuchs, of San Francisco, some years ago; its chief specific characters are as follows:—

Form moderately slender, parallel, evenly and transversely but moderately convex, rather shining, glabrous, dark testaceous in color; head quadrate, finely, rather closely punctate, the sides somewhat abruptly oblique and straight anteriorly to the broadly sinuate apex; prothorax large, conspicuously wider and very much longer than the head, scarcely longer than wide, widest very near the apex, where the sides are rather prominently rounded, thence at first slightly sinuate and then nearly straight and feebly, evenly converging to the base, the apex sinuato-truncate, distinctly wider than the broadly arcuate base, the surface finely, somewhat closely punctate, with an entire smooth and impunctate line, the concavity along the thick reflexed lateral beaded edge with a row of coarser punctures anteriorly; elytra equal in width to the prothorax and three-fifths longer, about three-fifths longer than wide, the sides parallel and straight, rounding slightly at base to the rather prominent humeral angles, obtusely parabolic at tip, the surface extremely minutely, somewhat sparsely punctate, the suture very fine and simple; abdomen rather finely, somewhat sparsely punctate, becoming extremely minutely and sparsely so toward tip, the last ventral circularly rounded and almost as long as the two preceding combined. Length 1.7 mm.; width 0.48 mm. California (Los Angeles Co.).....*singularis* Linell

There are many singular characters pertaining to this very minute Tenebrionid, besides the eyes, antennæ and intrusion of the sides of the abdomen upon the epipleuræ posteriorly,—

for example the posteriorly flexed basal margins of the elytra, becoming the innermost of the fine discal threads of the dorsal surface, and the fact that the abdomen becomes more minutely and sparsely punctate posteriorly, instead of more densely as is the general rule. No sexual marks can be perceived in the specimen before me.

Tribe BATULIINI

In *Batuliodes*, provisionally assigned to this tribe, the antennæ are as in *Typhlusechus*, only much more elongate and are perfectly free, not being received in grooves, and there seems to be a premonition of the trochantin becoming so distinct in *Anepsius*, the sterna coming together at a very large deep suture, which is much more open near the coxæ than in any of the preceding tribes. The body is very small in size, oblong-oval and not linear or with the hind body dilated as in the Dacoderini or Aræoschizini, but resembling *Anepsius* completely. The two genera may be described as follows¹:—

Body larger, sparsely pubescent; prothorax not so basally narrowed; eyes not at all divided; clypeus not emarginate anteriorly; antennæ short, apically incrassate; mentum and palpi nearly as in the preceding; anterior tibiæ strongly dilated, subdentate externally. [Type *B. setosus* Lec.].....**Batulius**

Body oblong-oval, evenly and moderately convex, glabrous; head trapezoidal, transverse, scarcely constricted at base, the clypeus large, transverse, virtually concealing all the mouth-parts from above, the apex broadly emarginate, the bottom of the emargination broadly arcuate, the lateral lobes somewhat advanced, prominent and narrowly rounded, the lateral sutures short and feeble, the supra-antennal prominences very feeble; mandibles small, slender, bifid at tip; mentum moderate, subquadrate, obliquely narrowed toward base, exposing the entire maxillæ but covering the short broad ligula, the palpi small, moderately slender, the last joint of the maxillary narrowly oval, obtusely pointed, longer than the preceding; eyes basal, moderately large, on the sloping sides and giving no vision directly beneath, coarsely faceted, completely divided by the anterior canthus, which extends to their transverse hind margin, both segments narrow, elongate and deeply sunken, the inner segment bounded internally by a very short and feeble ridge, the outer externally by the slightly extended under surface; antennæ moderately long, slender, subglabrous

¹The characters of the tribe Batuliini, given on page 282 of this paper, are taken from *Batuliodes rotundicollis*, and may not therefore be truly those of the tribe as represented by its proper type, which is *Batulius setosus* Lec.

and shining, the joints narrowing but little toward their bases, one to seven elongate, the first a little thicker than the following, the second much elongated, two to seven equal in diameter but diminishing in length, eight to eleven forming a broader, elongate, loose and compressed club, the eleventh longer than wide, ogival, evidently longer but somewhat narrower than the tenth; prothorax obtrapezoidal, with rounded sides; scutellum large, transversely triangular but confined entirely to the broad peduncle at the base of the elytra, the latter not margined at base, with series of punctures, moderately embracing the sides of the body, the inflexed sides occupied by rather narrow and entire epipleuræ, which have a broad flat elevated lower edge throughout; prosternum rather short before the coxæ, the intercoxal process subhorizontally extended behind them for a short distance, angulate and prominent at apex; metasternum large, the episterna moderately wide, parallel, the suture distinct and rectilinear; abdomen evenly and moderately convex, the first three segments large, diminishing in length, the fourth very short, the fifth rounded behind and unmodified, nearly as long as the third, the sutures equally and feebly curved and rather fine, the second to fourth abruptly bent posteriorly for a short distance at the extreme sides; coxæ moderate, the anterior moderately separated, the intermediate rather narrowly, the posterior obliquely sublinear, transverse and somewhat widely separated; legs short but not very stout, subglabrous, the tibiæ rather abruptly dilated at apex, with evident spurs. [Type *Batulius rotundicollis* Lec.].....**Batuliodes**

LeConte described two species under the generic name *Batulius*, the first only of which, published under the name *setosus*, appears to have been examined in regard to its generic characters. Making all due allowance for mistakes of observation, the characters above given for *setosus* differ profoundly enough from those of *rotundicollis* to demand generic separation. Neither of these species seems to have been given more than the most cursory examination since the original descriptions were published in the Annals of the New York Lyceum (V, p. 148), and, as I do not have any representative of *setosus* before me, I am compelled to transcribe the above superficial and unconfirmed generic characters.

Batulius Lec.

I have to regret my inability to give a more extended account of this interesting genus at the present time, and shall have to limit my recount of characters to those already published. If the eyes are correctly described by LeConte—“oculi haud

divisi,"—the generic difference between *Batulius* and *Batuliodes* would be extremely radical on that account alone, but the form of the anterior margin of the clypeus, as described by that author, is probably correct, being more easily observed under low power, and even this would amply suffice for generic distinction, irrespective of the different form of the prothorax and the sparse erect pubescence. We have but a single species as follows:—

Form oblong, convex, pale rufous in color, shining, sparsely pilose; prothorax more than twice as wide as long, muricately punctate, densely at the sides, the latter strongly rounded, the apex emarginate, the base truncate, the angles obtuse; elytra with less approximate punctures, subseriately disposed. Length 3.5 mm. Southern California (Vallecito and Gila)*setosus* Lec.

Both this species and *rotundicollis* appear to be very rare, or at least seldom taken; possibly they may feign death and their pale coloration would then render them difficult to distinguish.

Batuliodes n. gen.

The generic diagnosis above given is derived from a single rather delapidated individual, without legs, save the femur and tibia of one of the intermediate pair, so that I have been unable to describe the tarsi. These are said by Horn (Rev. Ten., p. 270), to be short and spinose beneath, probably in *setosus*, but without much doubt somewhat similar in the following type species of *Batuliodes*, which may be thus briefly outlined:—

Body minute, evenly convex, polished, glabrous, pale brownish-testaceous in color throughout; head transverse, moderate, evenly and feebly convex, rather coarsely, closely and roughly punctate, each puncture attended by a feeble external carina; antennæ slender, almost as long as the head and prothorax, the latter four-fifths wider than long, very much wider and a little longer than the head, the sides rather strongly arcuate, more converging and less arcuate toward base, the latter truncate and much narrower than the apex, which is broadly, feebly sinuate, the side margins acute, the surface rather coarsely, sparsely and simply perforato-punctate and polished, abruptly more densely and confluent so near the sides; elytra equal in width to the prothorax and two and three-fourths times as long, oval, the sides evenly arcuate, strongly and evenly rounding at base to the transversely truncate base of the elytra, which is laterally exposed beyond the very obtuse thoracic angles, the apex obtusely parabolic; surface with regular, unimpressed series of small, not very close-set

punctures, each puncture attended anteriorly by a fine carina extending almost to the next puncture; abdomen rather strongly but sparsely punctured. Length 2.3 mm.; width 0.68 mm.
 Southern California.....*rotundicollis* Lec.

The carinæ attending the elytral punctures are almost exactly as in *Anepsiis*, and it is certain that these two genera should not be widely separated.

We have now concluded all the tribes placed in the subfamily Tentyriinæ by LeConte and Horn, by reason of lacking the coriaceous hind margin of the subapical ventral segments and absence of the trochantin of the intermediate coxæ, but, as before remarked under the tribe Zopherini, it is much more than probable to my mind, that we should divide LeConte and Horn's first two subfamilies in a different way, limiting the Tentyriinæ solely to those forms with a very large mentum. Then we have another subfamily, including all the tribes from Zopherini to, but not including, the Asidini of Horn, disregarding the trochantin but associating together genera that very evidently resemble each other in general habitus; then, in succession, the Asidinæ, limited to the tribe Asidini of Horn, and finally the Coniointinæ, an isolated subfamily group, comprising the tribes Coniointini, Praocini, Branchini and Cœlini, the genera *Cælus* and *Cælomorpha*, composing the last named, not being properly tribal associates of *Coniointis* and *Eusattus*. This is by no means a finality of conclusion, simply occurring to me as a suggestion, but on the strength of this habitual resemblance, I will include in the present paper the five following genera, having a distinct trochantin interposed between the sterna which enclose the middle coxæ externally:—

Body nearly as in *Batuliodes* but larger and stouter, convex, glabrous; head similarly trapezoidal but with the clypeus very broadly and feebly sinuate toward the middle and less completely covering the mouth-parts, the sides not anteriorly prominent; eyes basal, more rounded and less coarsely faceted, generally completely divided in a similar manner by the thick anterior canthus, which similarly attains the transverse basal line of the eye, the lower part wholly inferior and much smaller than the upper part; antennæ, mandibles, mentum and palpi similar, except that the antennæ are shorter, with the third joint longer than the second; prothorax and elytra similar, the intercoxal process of the prosternum similarly

projecting subhorizontally backward, the metasternum much shorter, with broader episterna, the abdomen subsimilar, except that the sutures are not bent backward at the sides; ¹ legs rather short, moderately slender, the anterior tibiæ very broadly dilated externally at apex, with the spurs distinct and very unequal in thickness; tarsi short, sparsely spinose beneath. [Type *A. delicatulus* Lec.].....**Anepsius**

Body much more elongate and still larger, slightly convex, glabrous; head smaller, subquadrate, obliquely narrowed in anterior half, the clypeus transversely truncate with rounded angles, almost covering the mouth-parts, the antennal prominences feeble but rounding inward posteriorly to the eyes, which are large, convex, somewhat prominent, subbasal, transverse, on the sides of the head and only feebly and broadly sinuate anteriorly; mentum rather small, subquadrate, parallel, truncate, exposing all the maxillæ and most of the ligula, the palpi rather long and slender, the last joint of the maxillary elongate and obliquely truncate; mandibles slender, bifid at tip; antennæ very long, slender and filiform, with sparse hairs, the outer joints not at all wider but becoming shorter, the eleventh with a conoidal sensitive apical process, the third joint most elongate, the basal much the stoutest, the remaining ten joints exactly equal in width; prothorax sharply margined at the sides, the apex and base subtruncate, the latter very feebly arcuate toward the middle; scutellum large, transverse, truncate and conspicuous; clytra confusedly punctate, with narrowly reflexed and acute margin, the epipleuræ rather wide, flat, entire, occupying the entire inflexed side, with the raised flat lower margin very narrow; prosternum moderately separating the coxæ, not much produced and narrowly rounded posteriorly, somewhat free as in *Anepsius*; middle coxæ with distinct trochantin; metasternum large, fully as long as the first ventral, the episterna moderately wide, the suture rectilinear, gradually approaching the sides posteriorly; abdomen nearly as in *Anepsius*, except that the fourth segment is similar to the third and but little shorter; legs and tarsi rather long and slender, the anterior tibiæ linear, not dilated apically, the spurs small but distinct, subequal, the tarsi with very short sparse spinules beneath. [Type *V. tenuicornis* n. sp.].

Vacronus

Body elongate, parallel, convex, the integuments harder and denser, the size much larger, subglabrous; head not wider than long, obliquely narrowed from behind the middle to the apex, the latter truncate, with the sides minutely anteriorly prominent, the clypeus not quite concealing the mouth-parts, the mandibles bifid at tip; mentum rather small, transversely oval, sinuato-truncate at tip, exposing the maxillæ but covering the ligula, the four palpi somewhat slender and elongate, the last joint elongate, obtriangular,

¹This singular abdominal peculiarity of *Batuliodes* foretells a somewhat general character among the true Asidids.

with the truncate apex filled with whitish spongiöse sensitive tissue; side-pieces of the oral cavity prolonged and acutely prominent; antennæ thick, cylindrical, rather long and coarsely sculptured, the outer joints but little wider, the eleventh with a large and obtuse spongiöse apical convexity, the second joint short, third and fourth subequal, moderately elongate; eyes rather small, coarsely faceted, transversely reniform; prothorax with acute reflexed side margins; scutellum short but distinct, strongly transverse, truncate; elytra with short costæ forming series, the epipleuræ entire, moderately narrow, occupying the entire inflexed sides; prosternum long before the coxæ, the process slightly prolonged and obtusely porrect posteriorly, the mesosternum not at all excavated, narrow between the coxæ; metasternum well developed, the episterna parallel, moderately wide, the suture rectilinear; abdomen with the segments diminishing slightly in length posteriorly, nearly as in the preceding genus; legs moderately long and stout, the tibiæ not much dilated apically, with the spurs stout and unequal, the tarsi well developed, stout, with long and dense recumbent fulvous hairs beneath, the basal joint of the posterior scarcely as long as the last, the claws long, stout and strongly arcuate. [Type *N. cristata* Esch.]..... **Nyctoporis**

Body still much larger and much stouter, moderately convex, glabrous, with very thick dense integuments; generic characters nearly as in *Nyctoporis*, except that the eyes are relatively more finely faceted, the third antennal joint very much longer and the outer joints more dilated, the eleventh almost as wide as the tenth, broadly rounded at base, the spongiöse apical part strongly angulate, the glabrous basal part arcuately advancing anteriorly at the sides; intercoxal process of the prosternum broader, flat, acutely porrect behind, the mesosternum elevated and flattened between the coxæ, its anterior wall vertical and excavated for the tip of the prosternal process, recalling *Epitragus*; metasternum extremely short, the episterna moderately wide, narrowing posteriorly, with the suture arcuate; abdomen nearly as in the preceding genus, except that the last three segments are relatively smaller; elytra much more widely embracing the sides of the body, with the epipleuræ narrow, more or less feebly defined; legs long and rather slender, cylindric, the tibial spurs moderate, unequal, the tarsi cylindric, feebly grooved beneath, the joints crowned at apex, and especially at the inferior apices, with short stout fulvous spinules; claws rather small, slender. [Type *C. caraboides* Mann.].

Centrioptera

Body very similar to the last but still stouter and more convex, the generic characters almost similar, except that the last antennal joint is relatively very much smaller than the tenth and of a peculiar short, very transverse, obtrapezoidal form, with truncate and sensitive apex, the mesosternal excavation larger and deeper, the elytral epipleuræ more strongly defined and the tarsi even more

feebly channeled beneath, the palpi similar but smaller, narrower and less widely truncate at apex than in *Nyctoporis*. [Type *C. bicostata* Sol.].....**Cryptoglossa**

These genera bring us to the Asidini, of LeConte and Horn, a group very varied, containing species generally rather large in size and of a distinctly different habitus, including many genera, which appear to be less definitely limited than usual.

Anepsius Lec.

There can be no doubt whatever that this genus is to be associated with the Batuliini, as represented by *Batuliodes rotundicollis*, or possibly that *Batulius* and *Batuliodes* should form part of the Anepsiini, without even the distinction of a special group or subtribe, the trochantin losing all of any importance that it may have been supposed to possess in other parts of the series. At the same time, the special form of the eyes, clypeus and elytral vestiture, as stated by LeConte in describing *Batulius setosus*, may indicate that the tribe Batuliini should be composed of that species alone, in which event a tribe Anepsiini would be necessary for *Batuliodes rotundicollis* and the various species of *Anepsius*. It is interesting, in this connection, to trace the development of the peculiar elytral sculpture first observable in *Batuliodes rotundicollis*, where, as stated, each of the elytral punctures is situated at the posterior end of a short linear carinule. This identical structure prevails in the present genus, the carinæ becoming a little stronger, while in *Nyctoporis* they become so strong as to constitute the most conspicuous feature of the sculpture, the series of short carinæ forming strongly marked ridges. In *Vacronus*, a very aberrant type, the elytral punctures become fine and confused but, under sufficient power, the carinæ attached to the punctures may still be observed, though small and feeble and of somewhat different nature. The species of *Anepsius* are rather numerous, those before me being definable as follows:—

- Eyes completely divided.....2
- Eyes not quite divided, the canthus approaching closely to the hind margin of the eye but not interrupting the facets.....10
- 2— Body uniform in coloration throughout or virtually so, pale brownish-piceous to black.....3

- Body pale brownish-testaceous in color, the disk of the pronotum and a broad subsutural longitudinal streak on each elytron nubilously piceous-black8
- Body bicolored, the anterior parts obscure but pale testaceous, the hind body piceous-black, the abdomen testaceous toward the sides and apex.....9
- 3 — Anterior angles of the prothorax blunt.....4
- Anterior angles right and not at all blunt, sharply defined7
- 4 — Apical angles of the prothorax much deflexed and rounded. Body rather stout and the largest of the genus, convex, polished, glabrous, black, the anterior parts scarcely visibly picescent, the legs and antennæ piceous; head trapezoidal, the oblique sides straight, slightly prominent and arcuate just above the antennæ, the upper section of the eyes rather short, oblong and rather less coarsely faceted than usual, the surface not very coarsely but asperately, somewhat closely punctured; prothorax fully four-fifths wider than long, parallel, the sides evenly and strongly arcuate, the basal angles evident but very obtuse; surface convex, unusually declivous at the sides, finely, rather sparsely punctured, becoming gradually less finely and asperately so laterally but still not very closely; elytra barely one-half longer than wide, gradually ogival behind, the sides parallel, evenly and moderately arcuate to the obtusely but distinctly angulate humeri, which are moderately exposed at base, the disk slightly wider than the prothorax and between two and three times as long, not very closely, finely punctured in close-set series, rather regular laterally but uneven toward the suture, the carinæ attending the punctures laterally extremely small and scarcely noticeable; abdomen finely, very sparsely punctate, more coarsely, closely and rugosely so near the sides. Length 4.5 mm.; width 1.7 mm. Arizona (Holbrook), — H. F. Wickham.....**valens** n. sp.
- Apical angles of the prothorax not unusually deflexed or rounded, distinct and merely blunt at the immediate angle.....5
- 5 — Elytral punctures laterally not attended by a distinct longitudinal carinule; body unusually short. Form stout, strongly convex, polished, colored as in *valens*, glabrous; head trapezoidal but without the arcuate prominence at the sides above the antennæ, the eyes moderate, coarsely faceted, the surface not very coarsely or closely but very asperately punctate; antennæ a little shorter and stouter than usual; prothorax not quite four-fifths wider than long, three-fourths wider than the head, the base slightly narrower than the apex, the sides moderately and almost evenly arcuate, becoming feebly sinuate at the obtuse but distinct basal angles, which are thereby rendered somewhat prominent, the apical angles bluntly rounded; surface minutely and very remotely punctured medially, then somewhat coarsely and less sparsely, then rather abruptly coarsely, closely and subrugosely near the sides; elytra very short, scarcely a third longer than wide, barely

wider than the prothorax and two and one-half times as long, rather abruptly and broadly ogival behind, the sides parallel and very feebly arcuate to the distinct and angulate humeri, which are only a little exposed at base, the surface very convex and highly polished, with close-set series of punctures laterally, the punctures coarser than usual, not very close-set in the series and without attendant carinules, each with a very minute spiculiform prominence at its anterior edge, not quite so coarse, sparse and almost wholly confused toward the suture; abdomen finely, very sparsely punctured, somewhat coarsely but not densely or rugosely near the sides. Length 3.2 mm.; width 1.2 mm. Colorado (Greeley).
montanus Csy.

Elytral punctures laterally each at the posterior end of a distinct longitudinal carinule extending almost to the next anterior puncture; body more elongate in form and less convex, less strongly shining.....6

6 — Form moderately stout and convex, somewhat shining, black, the head anteriorly and the elytra effusedly picescent; antennæ piceous, the legs rufous; head evenly trapezoidal, not coarsely but closely and very asperately punctate, the upper lobe of the eyes larger, elongate and subparallel; prothorax less transverse, scarcely more than one-half wider than long, two-thirds wider than the head, widest at the middle, the sides broadly rounded, more converging and straight basally, the base distinctly narrower than the apex, the angles very obtuse but not at all blunt, the apical projecting but little anteriorly and bluntly rounded; punctures fine, perforate and close-set, with a narrow smooth line medially, becoming less fine, rugulose, closer and longitudinally confluent laterally; elytra one-half longer than wide, a little wider than the prothorax and two and three-fourths times as long, oval, gradually but very obtusely ogival posteriorly, the sides distinctly and evenly arcuate to the obtuse and evidently rounded humeri, the punctures fine, in close-set even series throughout, the carinules obsolete toward the suture, the alternate series toward the sides very feebly elevated; abdomen shining, rather coarsely but not very closely punctured. Length 3.7 mm.; width 1.25 mm. California (southern) *catenulosus* n. sp.

Form still less stout, moderately convex, piceous-brown throughout, glabrous, shining; head nearly as in the preceding but smaller and less densely, though otherwise similarly, punctato-asperate, the eyes much smaller, the upper lobe short and subtriangular in form; prothorax shorter, three-fourths wider than long, finely but deeply, rather less closely punctured medially, with an irregular smooth line, only a little larger and closer but asperulate laterally, in outline nearly as in *catenulosus*, except that the sides are less converging posteriorly and slightly arcuate and not straight; elytra nearly similar but narrower and somewhat more elongate, not at all wider than the prothorax, more acutely ogival at tip and with

the humeri obtuse but angular and distinct, the sculpture similar though rather finer, the alternate series toward the sides not prominent; abdomen more finely and sparsely punctured medially but as coarsely so laterally; elytral base exactly equal in width to the base of the prothorax, rectilinear and transverse beyond the peduncle, sinuate and convexly sloping medially as usual. Length 3.8 mm.; width 1.2 mm. California (San Diego to Vallecito).

delicatulus Lec.

Form somewhat similar but shorter and rather more convex, shining, black, the legs rufo-piceous; head and eyes nearly similar, the antennæ a little shorter and stouter; prothorax narrower and less transverse, two-thirds wider than long, nearly similar in form and in its even deep apical sinuation, the apical angles a little less blunt, the punctures throughout similarly close-set but rather stronger; elytra decidedly shorter and more rapidly and obtusely ogival at apex, somewhat wider than the prothorax and barely two and one-half times as long, the sides parallel, evenly and moderately arcuate to the humeri, the latter and base of the elytra as in *delicatulus*; sculpture almost similar though rather less fine and somewhat sparser, the alternate series distinctly prominent laterally; abdomen deep black, pale at tip, finely, sparsely punctate medially. Length 3.6 mm.; width 1.2 mm. California (San Diego).

atratus n. sp.

7—Form nearly as in *delicatulus*, somewhat less shining, dark piceous-brown in color; head nearly as in *delicatulus* but a little larger, more strongly and closely asperato-punctate and with the upper lobe of the eyes a little larger, more elongate and less triangular; prothorax less transverse, one-half to three-fifths wider than long, the anterior angles more anteriorly prominent as well as not blunt, otherwise nearly similar in form and sculpture; elytra rather more obtusely ogival posteriorly and a little wider than the prothorax, otherwise similar throughout to those of *delicatulus*, except that the sides are somewhat less arcuate; abdomen very finely, sparsely punctured medially, moderately coarsely and closely so laterally, especially toward base. Length 3.2–3.9 mm.; width 1.08–1.3 mm. Utah (southwestern), — C. J. Weidt.

brunneus n. sp.

8—Body more slender, moderately convex and shining, glabrous as usual; head nearly as in *delicatulus* throughout, the eyes a little more elongate; prothorax relatively much broader, barely two-thirds wider than long, subparallel, the sides subevenly and somewhat strongly arcuate, only a little more converging basally, the base only just visibly narrower than the apex, with the angles very obtuse but distinct, the apical angles right and blunt, the apex evenly and distinctly sinuate between them; surface rather finely and closely punctured medially, with the smooth line indistinct, larger, dense and rugulose laterally; elytra one-half longer than wide, distinctly narrower than the prothorax and barely two and

one-half times as long, gradually and arcuately narrowed to the narrowly obtuse tip in apical two-fifths, the sides parallel and evenly, moderately arcuate to the obtuse and subangulate but bluntly rounded humeri, the basal line thence to the peduncle somewhat oblique; surface with fine serial sculpture as in *delicatulus*, the alternate series subelevated laterally; abdomen finely, sparsely punctured medially. Length 3.0 mm.; width 1.1 mm. California (southern).....**nebulosus** n. sp.

9 — Body formed nearly as in *nebulosus* and, similarly, only moderately shining; head a little larger and more broadly truncate at apex than in *nebulosus*, similarly sculptured, the eyes similar, the upper lobe elongate, the antennæ rather stouter; prothorax relatively rather broad, nearly three-fourths wider than long, the sides broadly and moderately arcuate, more converging toward base than in the preceding, the basal angles similar, the apical less anteriorly prominent and still more blunt, the apex evenly sinuate; surface strongly, moderately closely and not so finely punctate medially, with the narrow median smooth line better defined, coarser, moderately dense and subrugose laterally; elytra nearly as in *nebulosus* but equal in width to the prothorax and somewhat more abruptly, obtusely ogival posteriorly, the sculpture almost similar; abdomen finely but strongly, sparsely punctured medially. Length 3.2 mm.; width 1.1 mm. California (Kern Co.).

bicolor n. sp.

10 — Form nearly as in the preceding but still smaller in size, blackish-piceous, the legs rufous, moderately convex, rather shining; head small, of the usual form, the asperate punctures moderately close; prothorax one-half wider than long, the sides moderately arcuate, straighter toward apex and base, more strongly converging toward the latter, the former almost truncate, the angles but slightly prominent and blunt, the basal angles very obtuse though distinct; surface with fine and rather sparse punctures medially, with a narrow smooth line, but little larger or closer but more asperate laterally; elytra equal in width to the prothorax and barely one-half longer than wide, obtusely ogival behind, the sides parallel and feebly arcuate to the obtusely angulate but blunt humeri, the sculpture nearly as in *delicatulus* though rather finer, the alternate series slightly prominent laterally; abdomen somewhat finely, sparsely punctured, coarsely and more closely so laterally. Length 2.75 mm.; width 0.9 mm. California (near San Diego).

deficiens n. sp.

The scutellum is confined to the depressed part of the elytral base, forming part of the peduncle as in *Batuliodes*, but here, instead of being evenly triangular with straight sides, it is produced toward tip, with the sides of the narrow produced part parallel and nearly straight and the apex rounded.

Vacronus n. gen.

While its general characters show conclusively that this genus belongs in the neighborhood of *Anepsius*, its very slender, filiform and altogether exceptional antennæ and the profound differences observable in the palpi and mentum and in its large eyes and scutellum, preclude any possibility of close or even tribal association with it, and I am therefore forced to conclude that *Vacronus* represents a distinct tribe, between the Anepsiini and the Nyctoporini. The type may be described as follows:

Form elongate, parallel, moderately convex, glabrous, moderately shining, pale and uniform reddish-brown in color throughout; head rather small, subquadrate, the sides at the middle subangulate and as prominent as the eyes, thence obliquely converging to the broadly truncate apex and, posteriorly, strongly converging for a short distance to the eyes, which are large, convex and near the base, the latter very feebly constricted; surface broadly impressed at each side anteriorly, rather finely, closely and asperulately punctate; antennæ half as long as the body, very slender and filiform, exactly equal in diameter from the base of the second joint to the apex, all the joints elongate, the second the shortest, the third but little longer than the fourth; prothorax two-fifths wider than long, three-fourths wider than the head and distinctly longer, parallel, widest at or just before the middle, the sides subevenly, rather strongly arcuate, straighter or feebly subsinuate toward the basal angles, which are slightly obtuse and distinct, the base broadly, very feebly arcuate, becoming transverse and straight toward the angles, a little wider than the apex, which is evenly sinuate, the angles rather obtuse but only slightly blunt; surface evenly convex, subexplanate near the sides, somewhat finely, very closely and confusedly punctate, not more coarsely but more deeply and coalescently so in fine irregular rugæ laterally; scutellum transverse, truncate; elytra truncate at base, almost twice as long as wide, between three and four times as long as the prothorax and evidently wider, gradually and acutely ogival behind, the sides parallel, evenly and feebly arcuate, broadly reflexed, the humeri rounded, slightly exposed at base, feebly and longitudinally prominent; surface finely, rather sparsely, confusedly punctured, more strongly externally, the punctures, especially toward the sides, each with a short carinule, not proceeding longitudinally but obliquely tangent to the puncture on its antero-outward side; abdomen minutely, very sparsely punctured, more coarsely and less sparsely toward the sides. Length 5.0 mm.; width 1.8 mm. California (Independence), — H. F. Wickham.....*tenuicornis* n. sp.

The single specimen in my cabinet is a female. The hind wings seem to be well developed, the relationship of the genus

to *Anepsius* being possibly somewhat similar to that of *Epitragus* to the Gnathosiini, as far as habits are concerned, *Anepsius* being wingless and epigeal.

Nyctoporis Esch.

This genus constitutes a type widely isolated in this part of the Tenebrionid series, by reason of the long dense hairs clothing the tarsi beneath, and, although much larger than *Anepsius* and presenting a very different appearance, owing to its dense and very coarsely sculptured integuments and costate elytra, a closer analysis seems to show that these conspicuous costæ are merely an extreme development of the regular series of short carinæ so prevalent in that genus. For *Nyctoporis* a distinct tribe is necessary, the Nyctoporini; it contains rather numerous species, confined, as far as known, to the true Pacific coast fauna of California and those in my cabinet may be separated by the following characters:—

- Pronotum with two rounded discal impressions arranged transversely; head medially carinate; elytral ridges alternating very slightly in prominence.....2
- Pronotum without the discal impressions5
- 2— Elytral suture margined at each side by a regular series of small elongate tubercles..... 3
- Elytral suture without the marginal series of tubercles.....4
- 3— Body rather stout, parallel, convex, brownish-black, slightly shining; head very coarsely, confluentely foveate, less coarsely so anteriorly, the frontal margin nearly as in *Batuliodes*, the lateral lobes of the clypeus small but angularly prominent anteriorly; antennæ with the third joint a little shorter than the fourth; prothorax somewhat wider than long, much wider than the head, widest before the middle, the sides rounded, more converging basally than apically, the basal angles prominent, the apex sinuate, with the angles obtusely rounded; surface with very coarse deep and crowded or subconfluent foveæ, the lateral edges rather broadly and strongly reflexed; scutellum transverse, well developed, nearly as in *Vacronus*; elytra varying from a little more than one-half to about three-fourths longer than wide, evidently wider than the prothorax and two and one-half times as long, rather abruptly, very obtusely rounded behind, with the individual apical angles slightly prominent and divaricate, the sides parallel and feebly arcuate to the obtusely angulate and slightly prominent humeri, which are very narrowly exposed at base beyond the thoracic angles, the series of short and strongly elevated carinæ

5

feebly alternating in prominence, the intervals with single series of moderate punctures, each bearing anteriorly a small tubercle and a small suberect hair, which is similar to those of the head, pronotum and abdomen, the latter coarsely, closely and evenly punctate, the interspaces dull in lustre. Length 13.8-15.3 mm.; width 4.6-4.9 mm. California (San Francisco). [= *N. galeata* Lec.].....**cristata** Esch.

Body smaller and notably more slender than in the preceding, blackish, the under surface and legs rufo-piceous, the small hairs pale and distinct; head nearly as in *cristata*, the third antennal joint slightly shorter than the fourth and longer than the fifth; prothorax nearly as in *cristata* throughout, except that the apex is almost rectilinearly truncate between the rounded and only very slightly produced angles and not broadly and angularly emarginate as in that species, and the sides are less converging toward base or less inflated before the middle; elytra more oval, gradually more narrowing basally, slightly wider than the prothorax, three-fourths longer than wide, the crests evidently alternating in prominence only near the base and toward apex, composed of smaller and shorter carinules than in *cristata*, the tubercles of the interspaces much more minute; abdomen coarsely but more sparsely punctured medially, the interspaces much more shining. Length 12.7 mm.; width 4.0 mm. California (Siskiyou Co.).....**pullata** n. sp.

4—Form narrower than in *cristata* and much smaller in size, brownish-black, the interspaces of the anterior parts and elevations of the elytra similarly shining, the surface with small sparse hairs; head similar but more strongly and obliquely narrowed anteriorly, the third antennal joint fully as long as the fourth and longer than the fifth; prothorax nearly similar in form and in its very coarse crowded sculpture, but with a distinct depression, extending obliquely and outwardly and obliquely backward from each of the rounded impressions; elytra oval, with parallel and somewhat strongly, evenly arcuate sides, fully three-fourths longer than wide and very much wider than the prothorax, the elongate tubercles forming the interrupted crests larger and less numerous than in *cristata*, with the alternating series only slightly more prominent, the punctures of the interspaces not, or only very faintly, tuberculiferous; abdomen less coarsely and more sparsely punctured medially. Length 11.4-13.2 mm.; width 3.8-4.4 mm. California (El Dorado and Sacramento Cos.).....**sponsa** n. sp.

5—Alternate ridges of the elytra very much more prominently elevated throughout; head medially carinate as in *cristata*..... ..6

Alternate ridges not more prominent, all the series of small cariniform tubercles equal and only moderately elevated, the tubercles much smaller than in the *cristata* type; head without longitudinal carina..... ..7

6—Form elongate, convex, black, dull in lustre, the elevations shining, the sparse hairs short but distinct; head sculptured as in

cristata, subangularly prominent at the sides just before the eyes, the third and fourth antennal joints equal in length; prothorax but slightly wider than long, formed as in *cristata* and similar in its very coarse and crowded foveæ, without the two submedian impressions but with a distinct impression near each side at about the middle, the apex broadly sinuate, the apical angles somewhat advanced but rounded; elytra at least three-fourths longer than wide, gradually ogival at tip, with the individual angles acutely prominent and somewhat divaricate, the sides parallel and broadly arcuate, very distinctly wider than the prothorax, the humeri very obtuse, broadly but very obliquely exposed at base; elevated ridges irregularly crenulate along the summit, the intermediate series composed of somewhat close-set carinules, the intervals each with a single series of rather coarse, close-set and finely tuberculiferous punctures; abdomen coarsely, closely cribrate. Length 13.0–15.0 mm.; width 4.2–4.9 mm. California (Monterey)...*carinata* Lec.

Form much shorter and relatively stouter, black, the small hairs unusually short and inconspicuous; head as in *carinata*, subangularly prominent before the eyes and arcuately narrowed thence to the apex, the antennæ similar, piceous in color; prothorax distinctly wider than long, otherwise as in *carinata*, the apex similarly sinuate and the angles slightly advanced but rounded, the lateral impressions distinct; elytra barely one-half longer than wide, the more elevated ridges a little higher and almost evenly though very closely tuberculose, the carinules of the intermediate series more widely spaced, the finely tuberculiferous punctures of the intervals less close-set, the apex very obtusely rounded, with the individual angles scarcely at all prominent or divaricate, the sides parallel and arcuate, the humeri only slightly exposed at base; abdomen extremely coarsely but not quite so densely cribrate. Length 12.0–14.5 mm.; width 4.4–5.2 mm. California (locality unrecorded), — Cab. Levette.....*segnis* n. sp.

7—Body moderately slender, convex, the elytra rather shining, black, the small hairs not conspicuous; head rather longer than wide, very coarsely and subconfluently foveate basally, less coarsely so before the middle from a well defined transverse line, the sides abruptly prominent before the eyes, obliquely and not very arcuately narrowed thence to the apex, with the sides notably reflexed; antennæ with the third and fourth joints equal; prothorax evidently wider than long, widest at apical third, where the sides are broadly arcuate, rather strongly converging thence to the base, becoming feebly sinuate, the basal angles acute and more or less prominent, the apex transverse, feebly sinuate at the middle and near each of the angles, which are rounded and not more produced than the median lobes; surface very coarsely and confluent foveate, evenly and moderately convex, feebly impressed near each side at about the middle, the sides rather broadly, strongly reflexed; scutellum large, transverse, very coarsely sculptured; elytra three-fourths to four-fifths longer than wide, distinctly wider than the

prothorax, with the somewhat prominent and angulate humeri widely and only a little obliquely exposed at base, the sides parallel and broadly arcuate, the apex rather gradually ogival, with the individual angles acute, prominent and everted; surface with only slightly elevated, even series of short and close-set carinæ, the alternate series more prominent toward base, the intervals with single series of somewhat coarse and perforate, moderately close-set tuberculiferous punctures, the suture narrowly margined with unevenly rugose carinules; abdomen only moderately coarsely and not very closely punctured medially, except at base. Length 14.0-15.0 mm.; width 4.8-4.9 mm. California (Oakland).
æquicollis Esch.

Body nearly as in *æquicollis* but somewhat smaller and less stout, black, similar in lustre and in the short sparse hairs; head before the eyes less abruptly, more feebly prominent and thence less strongly converging and more arcuate to the apex, almost similarly sculptured; antennæ with the third joint very distinctly longer than the fourth; prothorax nearly similar in form and sculpture though much less dilated anteriorly, the sides less converging toward base and less reflexed, almost as long as wide; elytra nearly as in *æquicollis* in form and sculpture, except that the humeri are but little exposed at base, and the surface at each side of the suture is more finely, confusedly tuberculose and less differentiated from the first series of punctures, the alternate series of carinules scarcely perceptibly more prominent toward base; abdomen, for the present genus, rather finely and notably sparsely punctate toward the middle and not densely so even on the first segment. Length 13.7 mm.; width 4.4-4.5 mm. California (Truckee) *maura* n. sp.

Body smaller than in the two preceding and more slender, brownish-black or paler, slightly shining; head nearly as in *æquicollis*, the oblique sides anteriorly strongly converging and nearly straight, the basally very coarse sculpture becoming very gradually and only slightly less coarse anteriorly, and not abruptly so and materially finer anteriorly as in that species; antennæ and legs thinner, the third joint of the former distinctly longer than the fourth; prothorax nearly as long as wide, less dilated anteriorly, the sides sometimes very feebly converging toward base, otherwise nearly as in *æquicollis*; elytra but little less than twice as long as wide, distinctly wider than the prothorax, with evenly arcuate sides but with the humeri only slightly exposed at base and but slightly prominent, the apex somewhat gradually, acutely ogival, the individual angles more minutely prominent and divaricate; surface with the sculpture similar but finer, the alternate series of carinules scarcely perceptibly more prominent near the base; abdomen coarsely but only moderately closely punctate medially. Length 12.4-13.0 mm.; width 3.75-4.1 mm. California (locality unrecorded), — Cab. Levette *tetrica* n. sp.

The species described above under the name *sponsa*, is sometimes identified as *cristata* Esch., but erroneously, as it is confined to the eastern side of the Sacramento Valley and to the Sierras, while the locality of *cristata* is the sea-coast region in the neighborhood of San Francisco; the name *galeata* Lec., will therefore have to fall as a synonym of that species. One specimen of *segnis* has the cariniform tubercles of the series between the ridges very remotely separated, giving it a remarkably different facies, but it is probably an aberrational form. I have been unable to discover any clearly marked secondary sexual characters in this genus.

The genera *Cryptoglossa* Sol., *Centrioptera* Mann., with its subgenus *Oochila* Lec., and *Schizillus* Horn, the last having the antennæ as in *Centrioptera* but with the eyes completely divided, from a tribe apart, known as the Cryptoglossini. It appears to be much more closely related to the Nyctoporini and *Anepsius* than to the Asidini, in many important characters. The species are large and well known in collections, so that a special revision is not necessary at the present time; no further allusion will be made to it, therefore, except to describe the following species of the genus *Centrioptera*:—

Body nearly as in *muricata* Lec., but rather smaller and decidedly more slender, deep black in color and strongly shining, glabrous; head rather wide than long, the sides anteriorly less converging and the apex much more broadly truncate than in *muricata*, with very broadly rounded angles, the surface broadly impressed transversely just behind the middle, the impression not attaining the sides, somewhat coarsely but sparsely punctured anteriorly, except in a large median impunctate area, finely, sparsely punctate basally; prothorax formed almost exactly as in *muricata* throughout and similarly punctured but less transverse, more shining and with the surface near the sides not somewhat broadly and very evidently reflexed, as in that species, but continuing the moderate convexity evenly to the prominent marginal bead; scutellum larger and more transverse; elytra in general similar to those of *muricata* in form and sculpture but much less inflated, strongly shining; under surface and legs nearly similar, except that they are strongly shining and not opaque, the tibiæ and tarsi much less setulose and the tarsal claws notably smaller and less arcuate. Length 16.5 mm.; width 6.3 mm. Utah (southwestern), — C. J. Weidt.....*utensis* n. sp.

I have before me but a single specimen of undetermined sex, though, because of the scarcely flattened median parts of the abdomen, it is probably a female.

ADDENDA.

I.

While the preceding revision was under way and in fact largely completed, I received considerable sets of specimens from Warren Knaus, H. F. Wickham and F. H. Snow, impelling me to rewrite more than half the tabular statement of *Metoponium* and virtually all of *Bothrotres*, but advantage was taken of this opportunity to eliminate a number of more or less doubtful forms and to suggest more practicable dichotomous characters, so that I am much better satisfied with the result. I have to thank my colleagues for thus adding materially to the present knowledge of the various groups.

In response to my request, Mr. Champion very kindly sent me all the Central American and Mexican species which were at his disposal, and, with great generosity, placed a number of them permanently in my collection. The importance of this in permitting a direct comparison between the tropical and Sonoran species can well be understood; it adds a great deal to the usefulness of this revision. It is especially gratifying to observe that the genera proposed above for our fauna, hold perfectly good for the Mexican species, although naturally a few additional genera are required for some of them. In definitely rejecting the generic name *Emmenastus*, it became necessary to know the tropical North American species, in order to assign them properly, as all but one were described under that title in the "Biologia." By help of the representative forms sent me, serving as a key, the following generic dispositions are suggested for the numerous species described by Mr. Champion:—

Eurymetopon brevicolle is assignable to the genus *Tclabis*.

Emmenastus chiriquensis, *belti*, *alatus*, *salvini*, *intermedius*, *longicornis*, *variabilis*, *canaliculatus*, *brevipennis*, *solitarius*, and *rotundicollis*, may be placed in the genus *Armalia*, which seems to be peculiar to the hot and generally low country bordering the Gulf of Mexico and the Caribbean Sea, a region climatically wholly distinct from the dry elevated Sonoran regions supporting the majority of the genera. Of the species mentioned, *variabilis*, *chiriquensis* and *belti* are before

me in actuality ; they are perfectly congeneric with *texanus* and *angularis* and are, in fact, so similar to our types in general form, sculpture and coloration, as to be discriminated only under more or less careful observation. The position of the other species is simply inferred from the original descriptions and are therefore to some extent provisional.

Emmenastus parallelus, tenebrosus, guatemalensis, subapterus, seriatus, mexicanus, vicinus and *ambiguus*, are to be referred to typical *Hylocrinus*, the last with considerable doubt however. The first three are represented in the material sent by Mr. Champion and are exactly congeneric with *longulus* Lec.

Emmenastus mancus, curtus, glabratus, lentus, rugicollis, pulvinatus, picipes, and *ellipticus* are members of the genus *Steriphanus*, and the first four are before me at present. *Lentus* has the antennæ unusually long and slender and *glabratus* has the eyes unusually deeply emarginate and the antennæ a little shorter.

Emmenastus stolidus is altogether exceptional in the Eury-metoponini, in having the eyes completely divided, more through the greatly extended posterior canthus than any unusual development of the anterior, the latter intruding upon the eye but little more than in normal species of *Steriphanus*. This character, in connection with the rounded basal angles of the prothorax and sparse vestiture of long stiff hairs on the under surface of the tarsi, renders it necessary to propose a new genus for *stolidus*, which may take the name *Steriphanides* (n. gen.). The form of the body is more evenly elliptical than in *Steriphanus*, approaching that seen in *Cryptadius* and *Stictodera*, but the sculpture is exceptionally feeble. The basal joint of the hind tarsi is evidently longer than the fourth.

Emmenastus foveicollis, lævicollis and *confusus* are represented among the material and belong to *Ditaphronotus*, as stated before under that genus. The type described on p. 341, under the name *championi*, is allied to *foveicollis*, but differs in its more abbreviated form, more rounded sides of the prothorax and elytra, more coarsely punctured and more impressed elytral series, subopaque and not strongly shining integuments and other characters. The convexity of the body is not especially

pronounced in either case, but *confusus* is much more depressed and differs greatly in the form of the very deep basal excavations of the pronotum; is probably not more than subgenerically different however.

Emmenastus igualensis is a perfectly typical member of the genus *Emmenides*. It is almost as large as *punctatus* Lec., but rather more abbreviated, duller in lustre, with much finer punctures throughout and with decidedly less prominent eyes, the resemblance in general habitus, as well as in the essential characters of the genus, is complete.

Emmenastus constrictus, from the Pacific coast State of Guerrero, must form a special genus, apparently allied to *Armalia*, but differing in the form of the front, which is bisinuate, with the very short median lobe subangularly rounded and feebly serrulate and having the left mandible more distinctly toothed above, the right very strongly. The eyes are large and convex, prominent, coarsely faceted and only feebly emarginate anteriorly, the antennæ slender and moderate in length. It has somewhat the facies of a very small *Armalia* and may take the generic name **Micrarmalia** (n. gen.). The form of the front and mandibles would seem to betray some relationship, also, with the Trimytini, through *Pescennius*, and indeed it may prove difficult to maintain the identity of the two tribes Eurymetoponini and Trimytini, when all the genera become known.

Some of the other genera proposed by Mr. Champion may be remarked upon as follows:—

MESABATES Champ.

This genus is represented by *latifrons*, a singularly short, stout and oblong-oval species, with a large head, which is transverse and feebly bisinuate anteriorly, with the median lobe short and transversely truncate, the eyes moderate, coarsely faceted and more than half divided, with short supra-orbital carina, and the antennæ unusually developed, being long, very heavy and scarcely at all enlarged distally. The metasternum is extremely short, about half as long as the first ventral but with the transverse ante-coxal grooves evident. It belongs near *McInastus* in the Eurymetoponini.

Of the two species subsequently attached to *Mesabates*, *spissicornis* may possibly be congeneric though probably not, but *inæqualis* is certainly generically different. In *inæqualis* the head is moderate in size, remotely and feebly bisinuate at apex, with the very short and broad median lobe rectilinearly truncate, the eyes rather small, not prominent but only slightly emarginate anteriorly, with a longer straight and oblique orbital carina, and the antennæ are long, very slender and enlarged distally. The prothorax is much narrower than the elytra, subtruncate at base and the elytra oblong, short and punctato-seriate except apically. The metasternum is very nearly as long as the first ventral, with the ante-coxal grooves obsolete and represented by a row of smaller punctures and the met-episterna are rather broad. It constitutes the type of a genus very near *Steriphanus*, which may be named **Mesabatodes** (n. gen.).

POSIDES Champ.

In its general characters this genus is also very close to *Steriphanus*, the antennæ, eyes, palpi and proportion of the various parts being similar, but the mandibles are more strongly toothed above, the left distinctly so and the right still more strongly, and the apices are not bifid but truncate. The front of the head is transverse and very feebly angulate, the lateral lobes projecting anteriorly somewhat further, with their sides oblique, becoming parallel toward the eyes. The prothorax is subequal in width to the elytra, as in *Steriphanus*, and is strongly lobed at base, and the metasternum is slightly shorter than the first ventral, with obsolete ante-coxal grooves and moderately narrow side-pieces. The genus differs from *Steriphanus*, besides, in having the tarsi densely clothed beneath with short fulvo-cinereous pubescence.

PESCENNIUS Champ.

This genus is a member of the Trimytini, differing very much from the other genera in its short and angular epistomal lobe, though partially connected in this respect through the subgenus *Pimalius*, of *Trimytis*, where the lobe becomes rounded and less prominent than in *Trimytis* or *Chilometopon*. The hairy vestiture of *Pescennius* is no more exceptionally significant in

the Trimytini, than that of *Trichiotes* or *Oxygonodera* in the Triorophini.

Of the other genera described by Mr. Champion, I can state nothing positively at present, but it is possible that *Samias* may be a member of the Trimytini and *Mencheres* of the Eurymetoponini.

II.

The South American genera of the Epitragini have not been investigated systematically thus far, though a number of species have been described by Berg, Fairmaire and others. As represented by material in my cabinet they may be known as follows:—

Mandibles bifid at tip; elytra with punctured series throughout the width, acute at tip.....2

Mandibles truncate at tip.....3

2 — Epistoma broadly sinuate; head without supra-orbital ridge, the eyes flat and rather finely faceted; prothorax sinuate at apex, with the angles acute and somewhat anteriorly prominent; tarsi with short dense pubescence beneath. Atlantic South America, extending into Central America. [Types *fuscus* Lat., *aurulentus* Kirsch and *rigens* Csy.].....**Epitragus** Latr.

Epistoma produced and rounded, with its apex narrowly and feebly sinuate or sinuato-truncate; eyes convex and prominent, coarsely faceted, with fine supra-orbital ridges which are bordered internally by a depressed area somewhat as in *Metopoloba*, the body similarly polished and subglabrous; prothorax truncate anteriorly, with obtuse and narrowly rounded or blunt and wholly non-prominent apical angles; tarsi with tufts of long dense pubescence beneath. Pacific South America. [Type *P. solieri* n. sp.].....**Parepitragus** n. gen.

3 — Prosternum produced, acute and received within a deep excavation of the mesosternum; last antennal joint moderate, never longer than the tenth; front bisinuate, the middle lobe slightly advanced and rounded; eyes flat, coarsely faceted, with very fine supra-orbital carinæ which are not bordered internally by a depressed area; prothorax emarginate anteriorly, with acute and prominent angles; elytra very acute, with even punctured series throughout the width; tarsi densely pubescent beneath. Atlantic South America, extending into Central America. [Type *Epitragus godmani* Champ.].....**Epitragopsis** Csy.

Prosternum finely acute posteriorly but only slightly produced, not entering the large and deep mesosternal excavation, which remains unaltered; last antennal joint elongate, as long as the two preced-

ing combined; front not bisinuate, with a large and evenly parabolic epistomal lobe; eyes convex, prominent and coarsely faceted, with short and very fine supra-orbital carinæ which are not bordered by a depressed area; prothorax short, broadly and deeply sinuate at tip, with the angles right and more or less blunt; elytra with coarse and confused punctuation throughout; tarsi with pads of short dense pubescence beneath. Atlantic South America. [Type *E. brevicollis* n. sp.].....**Eunotiodes** n. gen.

Prosternum deflexed and vertical behind the coxæ, not in the least produced, the mesosternum with a small and feeble indentation remaining as a vestigial character; epistoma between the oblique sutures very broad, trapezoidal, the apex broadly and rectilinearly truncate; last antennal joint smaller than the tenth, oval; eyes only feebly convex, rather coarsely faceted, the carinæ and vertex as in *Eunotiodes*; prothorax not abbreviated, sinuate at apex, with acute and more or less prominent angles; elytra with coarse and confused punctuation throughout, rapidly narrowed and acute at tip; tarsi slightly grooved beneath except toward base, with short, stiff sparse spinules, not at all pubescent beneath. Atlantic South America. [Type *O. farctus* n. sp.].....**Omopheres** n. gen.

Epitragopsis, which in the body of the present paper is treated as a subgenus of *Lobometopon*, is here regarded as a distinct genus, a course that would be necessary in any event in order to compare it with other South American generic types. The genus *Epitragus* has been alluded to in the present paper under the head of *rigens* (p. 381), and by Mr. Champion in the "Biologia."

The genus *Parepitragus* is represented by the following species:—

Moderately stout and convex, polished, dark castaneous, the pubescence very short and sparse, fulvous and inconspicuous, more noticeable near the eyes; head moderate, not very coarsely, sparsely punctate, more closely near the eyes and on the transversely tumid epistoma; prothorax nearly one-half wider than long, moderately narrowed at apex, the sides gradually converging and arcuate anteriorly, becoming parallel and feebly arcuate toward base, the basal angles right, not blunt but not at all prominent, the apical obtuse and blunt; surface broadly, moderately convex, impressed at the base near each side, more or less finely, very sparsely punctured, with an obsolescent impunctate area medially, more coarsely and closely punctate only very near the sides and in the basal impressions; scutellum semi-circular; elytra three and one-half times as long as the prothorax and nearly a third wider, gradually ogival and acute behind, the sides feebly arcuate, strongly rounded at base to the thoracic angles,

the humeri exposed basally, the callus rather strong; surface impressed near the suture apically, the convex intervals there becoming stronger, having throughout even, slightly impressed series of moderately coarse and widely spaced punctures, which are but little coarser laterally but becoming asperate toward tip; the intervals feebly rugulose, slightly convex, minutely, sparsely and confusedly punctulate; abdomen finely but strongly, sparsely punctate and somewhat pubescent. Length 10.7-12.3 mm.; width 4.3-5.0 mm. Ecuador (Guayaquil), — Rolle.

solieri n. sp.

The four examples sent me vary a good deal in size, the smaller probably being males but without any distinct sexual characters.

The genus *Eunotiodes* has for its type a species which may be described as follows:—

Body stout, oval, convex, somewhat alutaceous, blackish-castaneous, virtually glabrous; head very coarsely, not closely punctured medially, less coarsely and more closely laterally and anteriorly, the last antennal joint elongate, pyriform, with the apex compressed and truncate; prothorax twice as wide as long, the apex scarcely narrower than the base, the sides very evenly and rather strongly arcuate throughout, the basal angles obtuse and blunt; surface evenly and moderately convex, the pronounced apical bead ending abruptly inwardly at lateral fourth, the punctures moderately coarse and sparse, deep and without median smooth line medially, becoming coarse and closer but not dense laterally; scutellum ogival, wider than long; elytra two-thirds longer than wide, nearly one-half wider than the prothorax and more than four times as long, rapidly narrowed and acutely ogival in about posterior third, the sides parallel, feebly arcuate to the rectangular but rounded humeri, which are widely exposed at base, the surface even, with the punctures perforate, coarse and sparse, still coarser but only a little closer laterally; abdomen finely but strongly, sparsely punctured medially. Length 11.7 mm.; width 5.3 mm. Argentina (Mendoza), — Rolle.....*brevicollis* n. sp.

The sex of the single specimen before me is not evident. The large rounded epistomal lobe is finely pectinate about its contour.

The type of *Omopheres* may be thus described:—

Form very stout, convex, oval, polished, subglabrous, castaneous in color; head moderately coarsely but not very closely punctate, more closely on the flattened trapezoidal epistoma; prothorax relatively small, nearly one-half wider than long, the sides evenly and moderately converging and evidently arcuate from base to apex, subparallel in about basal third, the basal angles obtuse and somewhat blunt, the apical acute and not at all blunt; surface

evenly convex, the apical bead extending entirely across, rather coarsely, sparsely and irregularly punctate, without smooth line, but little more coarsely or less sparsely so laterally, except in a narrow longitudinal area near lateral sixth and along the lateral edges, where the punctures are less coarse but dense; scutellum moderate, fully as long as wide, narrowly rounded; elytra two-thirds longer than wide, almost four times as long as the prothorax and nearly two-thirds wider, rapidly and angularly narrowed in about apical fourth, the apex acute, the sides parallel and feebly arcuate to the broadly rounded and rectangular humeri, which are widely exposed at base, the elongate callus very strong; surface not impressed apically, even, without impressed lines, coarsely and sparsely, confusedly punctate, the punctures becoming very coarse and muricate, though not much more close-set, laterally; abdomen sparsely, moderately finely punctate. Length 14.8 mm.; width 6.3 mm. Argentina (Mendoza), — Rolle.

farctus n. sp.

It is possible that this may be identical with some one of the forms described by Berg or Fairmaire, but I am unable to confirm this at present, as the species are numerous and rather closely allied; I have two others among my material, both undetermined. All of these species, in fact, may possibly have been previously described but, as the literature is inaccessible at present and it became necessary to definitely fix the types of the new genera here defined, they are described as new with sufficient detail to secure identification.

III.

In the new edition of the European Catalogue of Heyden, Reitter and Weise, some changes of nomenclature appear, that were overlooked in drawing up the table of tribes on pages 277-282 of this paper. It appears that the genus *Capnisa*, of Lacordaire, must be designated *Gnathosia* Fischer, in future, and the genus *Gnathosia*, of Lacordaire, be known under the name *Dailognatha* Esch. It is not possible for me to confirm this nomenclature at present, but it should be recalled as significant that Motschulsky, in characterizing his *Emmenastus compactus* (ante p. 287), makes use of language that is absurd if we accept *Capnisa* in the Lacordairean sense, but perfectly intelligible if we consider *Capnisa*, of Lacordaire, to be in reality the *Gnathosia*, of Fischer, the outline in this genus being oval and

somewhat like that of *Zophosis*. I am inclined, therefore, to believe that the change of names given in the catalogue referred to is necessary, and the tribal name "Capnisini," on page 279 of this work, should therefore read Gnathosiini and the name "Gnathosiini," on the same page and wherever else used in this paper, should give place to Tentyriini.

In this connection it may be called to mind that the definition of the Tentyriini (Gnathosiini) given on page 279, states that series of punctures are wanting on the elytra. This character certainly pertains to the vast majority of the tribe in question, but in a few genera, such as *Mesostena*, there are rows of coarse and well defined punctures resembling those of *Triorophus*. The peculiar antennal structure and form of the scutellum are, however, precisely as in all the other genera of the tribe Tentyriini as here defined, the antennæ being wholly different from anything known in the American tribes.

IV.

Just as the final page proofs of this paper reach me, I receive, through the kindness of Dr. W. F. Rainbow, of the Australian Museum, Sydney, specimens of the Australian genus *Zopherosis*, and here make some hurried comparative studies. Although it undoubtedly combines the characters of the Zopherini and Nosodermini, having the structure of the ligula and antennæ very much as in the former and the mandibles and general facies as in the latter, I am inclined to regard it as constituting a special tribe, Zopherosini, having the ligula very short and broad but with the palpi, not minute and hidden as in Zopherini, but large and distinct, the mandibles bifid at tip and the antennæ nearly as in *Zopherus* and received in similar propleural fossæ, but with the last three transverse joints, forming the club, not solidly united as in Zopherini but free and very much as in Usechini. The depressed tuberculose upper surface of the body is of the same order as in Nosodermini, but the very small ligula of the latter tribe is sufficiently distinctive. *Zopherosis* combines in a remarkable manner the characters of the Zopherini, Nosodermini and Usechini, confirming the existence of old land connections between Australia and South America.